Texas Custodial Trust

2301 West Paisano Drive • El Paso, Texas 79922

Appendix I
Groundwater and Surface Water Sampling Results

I-1: Groundwater Sampling Results (Texas Custodial Trustee)

I-2: Groundwater Sampling Results (ASARCO)

I-3: Surface Water Sampling Results (Texas Custodial Trustee)

I-4: Surface Water Sampling Results (ASARCO)

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MALCOLM PIRNIE

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	EP-114					EP-116					EP-117		EP-119					EP-12				
Sampling Date	*9/30/2010*	*3/8/2011*	*9/9/2011*	*3/1/2012*	*8/22/2012*	*9/30/2010*	*3/8/2011*	*9/9/2011*	*3/1/2012*	*9/6/2012*	*3/1/2012*	*8/22/2012*	*9/29/2010*	*3/7/2011*	*9/7/2011*	*2/28/2012*	*8/27/2012*	*10/4/2010*	*3/3/2011*	*9/1/2011*	*2/24/2012*	*9/5/2012*
Total Metals (mg/L)																						
Aluminum	<0.05	0.0314 J	0.0461 J	0.0376 J	0.0448 J	3.37	0.435	0.123	0.532	0.155	<0.0225	0.0383 J	<0.05	0.184	< 0.0225	0.0267 J	<0.0225	0.062	0.118	< 0.0225	0.0484 J	0.0964
Antimony	<0.05	0.00883	0.0068	0.007	0.00611	0.094	0.0665	0.019	0.0451	0.0558	0.0161	0.0137	<0.05	0.00832	0.00788	0.00914	0.00782	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161
Arsenic	39.1	46.8	47.5	50.5	48.1	0.918	1.46	2.05	2.19	0.243	3.32	2.93	1.83	1.5	1.5	1.66	1.62	0.124	0.856	0.49	0.409	0.369
Barium		<0.0253 UJ	0.0215	0.0231	0.0227		0.038	0.0208	0.0315	0.0751	0.0206	0.0201		0.0297	0.0244	0.0329	0.0293		0.0949	0.0522	0.0654	0.0679
Cadmium	0.049	0.0536	0.0494	0.0443	0.0479	2.27	0.26	0.179	0.292	1.01	0.0494	0.0549	<0.005	<0.000854	< 0.000854	<0.000854	<0.000854	<0.005	<0.000854	< 0.000854	<0.000854	<0.000854
Calcium		547	540	560	693		207	186	249	224	200	207	135	128	123	156	155	212	197	143	123	101
Chromium	<0.01	<0.0014	<0.0014	<0.0014	<0.0014	<0.01	0.00601	<0.0014	0.00204 J	<0.0014	0.00406 J	0.00358 J	<0.01	<0.00155 UJ	< 0.0014	<0.0014	<0.0014	<0.01	0.00802	0.00723	0.0105	0.0136
Cobalt		0.0511	0.0465	0.0541	0.0578		0.0106	0.00666	0.011	0.037	<0.00136	<0.00136		<0.00136	< 0.00136	<0.00136	<0.00136		0.00141 J	< 0.00136	<0.00136	<0.00136
Copper	0.009 J	0.0288	0.00794 J	0.00867 J	0.00534 J	27.5	3.38	1.78	2.67	5.08	0.00716 J	0.00391 J	<0.005	<0.00115	< 0.002	0.0257 J	<0.002	0.015	<0.0049 UJ	< 0.002	0.00807 J	0.00715 J
Iron	8.68	8.71	10.8	13.6	13.4	14.5	6.5	1.12	3.42	<0.538 UJ	<0.101	<0.101	<0.01	0.177 J	< 0.101	<0.101	<0.101	2.06	4.3	2.33	1.92	1.08
Lead	<0.005	0.0112	0.00352 J	0.00208 J	0.0016 J	1.04	0.481	0.0844	0.299	0.49	0.00896	0.0109	<0.005	<0.000733	< 0.000733	0.000812 J	<0.000733	<0.005	0.00331 J	0.00272 J	0.00307 J	0.0027 J
Magnesium		228	219	216	258		62	63.6	15.2	22	37.7	42.6	61.6	58.1	59.7	63.1	70.2	68.8	73.9	56.7	58.8	43.2
Manganese	11.3	7.26	5.87	6.34	5.59	1.93	0.456	0.227	0.503	1.15	0.0175 J	0.0161 J	0.246	0.184	0.279	0.166	0.343	0.136	0.541	0.237	0.183	0.137
Mercury		<0.00013	<0.00013	0.000189 J	0.000345 J		0.00398	<0.00013	0.0032	0.00274	<0.00013	<0.00013		<0.00013	< 0.00013	<0.00013	<0.00013		<0.00013	< 0.00013	<0.00013	<0.00013
Molybdenum		0.517	0.447	0.412	0.529		0.235	0.236	0.233	0.0496	0.248	0.271		0.541	0.465	0.528	0.532		0.0207	0.00913	0.00854	0.00841
Nickel		0.154	0.144	0.178	0.183		0.029	0.0275	0.0329	0.0475	0.0118	0.0124		0.00292 J	0.00332 J	0.00272 J	<0.00217		0.0209	0.0141	0.0169	0.0147
Potassium		200	167	185	202		29.9	22.5	27.2	10.4	78.3	81.2	51	53	46.3	71.2 J	58.7 J	16.9	11.9 J	8.77	9.69	8.79
Selenium	<0.02	0.025	0.0263	0.0203	0.0167	0.25	0.226	0.22	0.488	0.157	2.08	1.74	0.167	0.173	0.147	0.166	0.158	5.35	0.351	0.0926	0.0731	0.118
Sodium		629	509	774	962		828	691	140	222	843	930	540	539	555	747 J	700	724	741	631	609	594
Thallium		0.00346	0.00367	0.00301	0.00335		0.388	0.181	0.335	0.427	0.00244	0.0011 J		<0.000693	< 0.000693	<0.000693	<0.000693		<0.000693	< 0.000693	0.000855 J	0.00183 J
Zinc		8.83	9.04	8.04	7.5		0.796	0.581	1.05	4.36	0.066	0.0687		<0.00355	< 0.00355	0.0536 J	<0.00355		0.00565 J	0.00385 J	0.00835 J	<0.00355
Dissolved Metals (mg/L)																						
Aluminum	<0.05					0.156							<0.05					<0.05				
Antimony	<0.05	0.0092	0.00687	0.00725	0.00574	<0.05	0.0115	0.0115	0.0146	0.0426	0.0159	0.0135	<0.05	0.00684	0.0087	0.0093	0.00806	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161
Arsenic	27.1	45.2	45	45.2	47	0.08	1.27	1.75	1.68	0.168	3.35	2.97	1.57	1.81	1.54	1.6	1.63	0.075	0.765	0.511	0.376	0.362
Barium		0.0231	0.0214	0.0207	0.0213		0.0191	0.0184	0.0203	0.0714	0.021	0.0197		0.0259	0.0257	0.0316	0.0303		0.0812	0.0521	0.0581	0.0656
Cadmium	0.034	0.0477	0.0474	0.0427	0.0441	1.18	0.234	0.179	0.256	1.02	0.0491	0.0543	<0.005	<0.000854	< 0.000854	0.00176 J	<0.000854	<0.005	<0.000854	< 0.000854	<0.000854	<0.000854
Calcium	580					237							131					209				
Chromium	<0.01	<0.0014	<0.0014	<0.0014	<0.0014	<0.01	<0.0014	<0.0014	<0.0014	<0.0014	0.004 J	0.00343 J		<0.0014	< 0.0014	<0.0014	<0.0014	<0.01	0.0065	0.00637	0.00647	0.0116
Cobalt		0.0569	0.0464	0.0513	0.0557		0.00957	0.00686	0.0104	0.0381	<0.00136	<0.00136		<0.00136	< 0.00136	<0.00136	<0.00136		0.00147 J	< 0.00136	0.00189 J	0.00171 J
Copper	<0.005	0.00137 J	<0.002	<0.002	<0.002	10.4	1.4	1.4	1.21	4.58	0.00457 J	0.00271 J	<0.005	<0.0017 UJ	< 0.002	0.0126	<0.002	<0.005	0.00215 J	< 0.002	<0.002	<0.002
Iron	0.184	7.39	10.1	12.9	12.6	<0.01	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	<0.01	<0.101	< 0.101	<0.101	<0.101	0.31	2.95	0.674	0.487	0.103 J
Lead	<0.005	<0.000733	<0.000733	<0.000733	<0.000733	0.028	0.00959	0.00769	0.00933	0.226	0.00434 J	0.00183 J	<0.005	<0.000733	< 0.000733	<0.000733	<0.000733	<0.005	<0.000733	< 0.000733	<0.000733	<0.000733
Magnesium	227					45.7							59.4					66.7				
Manganese	9.03					1.05							0.202					0.128				
Mercury		<0.000225 UJ	<0.00013	0.000206 J	0.000258 J		<0.000152 UJ	0.000691 J	<0.00013	0.00203	<0.00013	<0.00013		0.000177 J	< 0.00013	<0.00013	<0.00013		0.000134 J	< 0.00013	<0.00013	<0.00013
Molybdenum		0.564	0.497	0.39	0.555		0.23	0.229	0.216	0.0518	0.248	0.28		0.476	0.468	0.499	0.54		0.0187	0.00711	0.00601	0.00488 J
Nickel		0.169	0.147	0.179	0.172		0.0272	0.0259	0.0299	0.047	0.0124	0.0123		0.00223 J	0.00403 J	0.00251 J	0.00224 J		0.0195	0.0138	0.0148	0.0144
Potassium	170					20.6							48.9					13.5				
Selenium	<0.02	0.0229	0.0251	0.0187	0.017	0.161	0.223	0.219	0.441	0.158	2.12	1.97	0.156	0.155	0.151	0.149	0.158	5.34	0.222	0.0811	0.0488	0.0992
Silica																						
Sodium	404					570							555					712				
Thallium		0.00348	0.00317	0.00319	0.00354		0.315	0.203	0.291	0.436	0.00175	0.00111 J		<0.000693	< 0.000693	<0.000693	<0.000693		<0.000693	< 0.000693	0.00251	<0.000693
Zinc		8.7	9.43	7.92	7.21		0.642	0.54	0.836	4.39	0.0675	0.0648		<0.00355	< 0.00355	0.0295	<0.00355		0.0243 J	< 0.00355	0.00438 J	<0.00355
Water Quality Parameters (mg/L)																						
Chloride	142	354 J	265	347	391	244	373 J	318	323	115	376	319	282	266	301 J	349	269	99.5	255	184	243	197
Fluoride	7.46	6.1	6.55	7.42	1.23	3.81	<3.5 UJ	3.08	3.68	2.76	2.94	0.398	3.63	19.7	3.18	3.42	4.12	0.5	2.94	0.74	0.854	1.16
Nitrate	<0.5		<0.206			1.92		12.3					4.76	2.59	3.55			<0.5	24.6	0.52 J		<0.103
Nitrate + Nitrite		<1	<0.4	<0.8	<4		12.6	12.3	19.7	7.17	27.2	24.9		2.59	3.55	5.25	5.38		24.6	< 1	<1	<0.2
Nitrite	<0.5		<0.4			<0.5		<0.4					<0.5	<1	< 0.4			<0.5	<1	< 1		<0.2
Sulfate	2340	305	2760	2820	2020	1370	1760	1600	1970	864	1580	1390	1050	903 J	1120 J	1120	920	1310	473	563	477	170
Sulfide	<0.1	<0.032 UJ	<0.0131	0.019 J	<0.0131	<0.1	<0.061 UJ	<0.0131	0.022 J	<0.022 UJ	<0.0131	<0.0131	<0.1	<0.046 UJ	< 0.0131 UJ	<0.018 UJ	0.032 J	<0.1	0.814	18.7	20.7	4.16
Total Alkalinity		583	619	614	700		406	425	416	149	290	301		339	357	367	369		842	1110	1290	1450
Total Dissolved Solids	4510	5200	5430	5520	5790	2700	3350	3290	3910	1560	3260	3230	2120	2450	2500	2580	2660	3190	4900	2550	2370	2310
Total Organic Carbon	19.1	124 J	29.6	12.4	12.1	3.93	<8.78 UJ	9.15	3.4	6.87	2.11	<3.21 UJ	3.26	62.9	53.8 J	2.5	2.73	23.1	93	24.3	22.4	39
Total Suspended Solids	20	29.6	34	30	42	82	49.6	9.4	28.8	6.4	<3	5.8	<1	6	5.2 J	3.2 J	<3	12	25	7.2	14	12

Notes are included on Page 9.

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	**EP-120**					**EP-122**					**EP-13**					**EP-131**		**EP-132**				
Sampling Date	*9/21/2010*	*3/1/2011*	*8/30/2011*	*2/22/2012*	*8/28/2012*	*9/29/2010*	*3/7/2011*	*9/6/2011*	*2/27/2012*	*8/24/2012*	*10/4/2010*	*3/8/2011*	*9/1/2011*	*2/24/2012*	*9/5/2012*	*9/21/2010*	*3/2/2011*	*9/29/2010*	*2/28/2011*	*9/7/2011*	*2/28/2012*	*8/27/2012*
Total Metals (mg/L)																						
Aluminum	2.09	0.693	0.188	0.329	0.333	<0.05	1.13	0.0487 J	<0.0225	<0.0225	7.11	0.305	0.372	0.193	0.266	<0.05	1.67	0.322	0.0182 J	< 0.0225	<0.0225	<0.0225
Antimony	<0.05	0.118	0.138	0.12	0.108	0.059	0.00794	0.0402	0.0371	0.0329	<0.05	0.0254	0.00423 J	0.00286 J	0.00323 J	<0.05	0.00222 J	<0.05	0.00652	0.00529	0.00542	0.00449 J
Arsenic	0.203	0.376 J	0.265	0.304	0.319	2.1	1.59	1.51	1.53	1.42	25.9	27.8	28.3	33.9	29.4	0.962	0.774	2.26	1.61 J	1.51	1.63	1.53
Barium		0.0487	0.039	0.0378	0.0389		0.029	0.0246	0.0249	0.0227		0.0395	0.0226	0.0233	0.024		0.049		0.019	0.019	0.0224	0.0235
Cadmium	<0.005	0.00257	< 0.000854	<0.000854	<0.000854	<0.005	<0.000854	< 0.000854	0.00138 J	<0.000854	1.03	0.908	0.731	0.818	0.846	<0.005	0.00224	<0.005	<0.000854	< 0.000854	<0.000854	<0.000854
Calcium	96.5	88.7	82.6	72.9	72.2	136	132	130	141	151	350	354	351	299	342	108	126	210	159 J	155	187	209
Chromium	<0.01	0.0045 J	0.00445 J	0.00603	0.00489 J	<0.01	<0.0014	< 0.0014	<0.014	<0.0014	<0.01	0.00274 J	0.00835	0.00332 J	0.00194 J	<0.01	0.00386 J	<0.01	<0.0014	< 0.0014	<0.0014	<0.0014
Cobalt		0.00215 J	< 0.00136	<0.00136	<0.00136		<0.00136	< 0.00136	<0.0136	<0.00136		0.00147 J	< 0.00136	<0.00136	<0.00136		0.00372 J		<0.00136	< 0.00136	<0.00136	<0.00136
Copper	0.032	0.0217	0.0114	0.0533	0.0181	0.009	<0.00115	< 0.002	0.0403 J	<0.002	0.251	0.0918	0.0547	0.0978	0.0174	<0.005	0.00823 J	<0.005	<0.00115	< 0.002	0.0287	0.00266 J
Iron	1.61	0.659	0.144 J	0.301	0.258	0.116 J	0.168 J	< 0.101	<1.01	<0.101	6.91	2.38	0.497	0.152 J	0.316	0.041	0.953	0.725 J	<0.101	< 0.101	<0.101	<0.101
Lead	0.017	0.00997	0.00295 J	0.00387 J	0.00564	<0.005	<0.000733	< 0.000733	<0.000733	<0.000733	0.841	0.305	0.123	0.0288	0.0486	<0.005	0.00891	<0.005	<0.000733	< 0.000733	0.00202 J	0.00199 J
Magnesium	55.1	59.6	55.8	47.1	54.4	54.9	51.8	53.4	55.1	62.3	58.4	43.8	44.3	55.1	52.1	40.6	42.4	49.4	38	37.7	41.3	47.2
Manganese	0.095	0.054	< 0.0116	0.0158 J	0.0188 J	0.013	0.0446	0.0541	0.0141 J	0.0536	0.162	0.0827	0.0706	0.0687	0.08	<0.005	0.783	0.047	0.0195	0.0149 J	0.0131 J	0.057
Mercury		<0.00013	0.000142 J	<0.00013	<0.00013		<0.00013	0.000211 J	<0.00013	<0.00013		<0.00024 UJ	0.00016 J	0.000143 J	<0.00013		<0.00013		<0.00013	< 0.00013	<0.00013	<0.00013
Molybdenum		0.256 J	0.101	0.0927	0.105		0.512	0.442	0.422	0.506		0.49	0.443	0.557	0.642		0.323		0.242	0.239	0.266	0.272
Nickel		<0.00217	< 0.00217	<0.00217	<0.00217		0.00299 J	0.00258 J	<0.0217	<0.00217		0.00687	0.0132	0.00802	0.00518		0.0112		0.0197 J	0.0246	0.0249	0.0262
Potassium	20.2	21.2	16.5	13.9	13.3	77.1	63.6	60	56.4	67.6	115	113	92.4	89.3	92.7	18.5 J	20.5	51.5	42.5	32.7	45.8	38.9 J
Selenium	<0.02	0.101 J	0.0267	0.0366	0.0308	0.164	0.165	0.141	0.149	0.155	6.02	6.18	5.47	6.54	5.63	0.099	0.153	0.272	0.278	0.24	0.365	0.428
Sodium	543	687	665	558	644	622	556	556	594	747	2010	2230	1960	1980	1910	575	718	672	609	613	836	684
Thallium		0.0144	< 0.000693	<0.000693	<0.000693		<0.000693	0.00542	<0.00558 UJ	0.00358		0.00419	0.00131	0.000985 J	0.0136		0.00261		<0.000693	< 0.000693	<0.000693	<0.000693
Zinc		0.0273	0.0117 J	0.0903	<0.0234 UJ		<0.00355	< 0.00355	0.0625 J	<0.00355		0.0882	0.0488	0.147	0.0174 J		0.0128 J		<0.00355	0.00552 J	0.0656	<0.00577 UJ
Dissolved Metals (mg/L)																						
Aluminum	<0.05		< 0.0225			<0.05					<0.05					<0.05		<0.05				
Antimony	<0.02	0.125	0.139	0.126	0.107	0.05	0.0399	0.0396	0.0377	0.0328	<0.05	0.00167 J	0.00302 J	0.00227 J	0.00222 J	<0.02	0.00193 J	<0.05	0.00629	0.00534	0.00572	0.00468 J
Arsenic	0.2	0.315	0.268	0.283	0.302	1.61	1.82	1.48	1.56	1.42	25.9	28.1	30.6	31.8	28.7	0.96	0.798	1.89	2.03	1.49	1.72	1.57
Barium		0.0435	0.0375	0.0371	0.0347		0.0262	0.0232	0.0254	0.0226		0.0191	0.023	0.0198	0.0197		0.0221		0.0192	0.0171	0.022	0.0222
Cadmium	<0.005	0.00246	< 0.000854	<0.000854	<0.000854	<0.005	<0.000854	< 0.000854	0.00138 J	<0.000854	1.03	0.729	0.566	0.758	0.824	<0.005	0.00159 J	<0.005	<0.000854	< 0.000854	0.00152 J	<0.000854
Calcium	94.2		83.3			108					347					106		173				
Chromium	<0.001	0.00365 J	0.00356 J	0.00433 J	0.00321 J		<0.0014	< 0.0014	0.00182 J	<0.0014	<0.01	<0.0014	< 0.0014	<0.0014	<0.0014	<0.001	0.00153 J		<0.0014	< 0.0014	<0.0014	<0.0014
Cobalt		<0.00136	< 0.00136	<0.00136	<0.00136		<0.00136	< 0.00136	0.00186 J	<0.00136		<0.00136	0.00177 J	0.00192 J	0.0016 J		0.00352 J		<0.00136	< 0.00136	0.00193 J	<0.00136
Copper	0.012	0.0105	0.00773 J	0.0481	0.00985 J	<0.005	<0.00193 UJ	< 0.002	0.048	<0.002	0.008	0.0176	0.0141	0.0898	0.00359 J	<0.005	<0.00115	<0.005	0.00158 J	< 0.002	0.026	0.00279 J
Iron	<0.01	<0.101	< 0.101	<0.101	<0.101	<0.01	<0.101	< 0.101	<0.101	<0.101	0.123	<0.101	< 0.101	<0.101	<0.101	<0.01	<0.101	<0.01	<0.101	< 0.101	<0.101	<0.101
Lead	<0.005	<0.000733	< 0.000733	<0.000733	<0.000733	<0.005	<0.000733	< 0.000733	<0.000733	<0.000733	0.018	0.00846	0.00809	0.00375 J	0.00425 J	<0.005	<0.000733	<0.005	<0.000733	0.0017 J	0.000881 J	<0.000733
Magnesium	51.3		56.1			43					58.3					39.9		<1				
Manganese	0.005		< 0.0116			0.008					<0.005					<0.0025		<0.005				
Mercury		<0.00013	< 0.00013	<0.00013	<0.00013		0.000131 J	< 0.00013	<0.00013	<0.00013		<0.000526 UJ	0.000312 J	<0.00013	<0.00013		<0.00013		<0.00013	< 0.00013	<0.00013	<0.00013
Molybdenum		0.117	0.102	0.0929	0.107		0.421	0.438	0.429	0.481		0.472	0.466	0.502	0.627		0.325		0.232	0.234	0.268	0.273
Nickel		<0.00217	< 0.00217	<0.00217	<0.00217		<0.00217	< 0.00217	<0.00217	<0.00217		0.00513	0.0206	0.00759	0.00441 J		0.0105		0.0204	0.0252	0.0266	0.0269
Potassium	18.4		17.1			57.8					115					12.8		39				
Selenium	<0.01	0.0392	0.0276	0.0367	0.0317	0.134	0.134	0.141	0.136	0.152	5.98	6.26	5.73	6.64	5.71	0.095	0.132	0.243	0.268	0.256	0.348	0.421
Silica																						
Sodium	510					514					2010					571		572				
Thallium		<0.000693 UJ	< 0.000693	<0.000693	<0.000693		0.00539	0.00582	<0.00497 UJ	0.00394		0.00163	0.000865 J	0.00106	0.0125		0.00244		0.00245	< 0.000693	<0.000693	<0.000693
Zinc		0.0258	0.0102 J	0.0884	<0.0126 UJ		<0.00399 UJ	< 0.00355	0.0653	<0.00355		<0.0177 UJ	0.0521	0.149	0.00426 J		0.0109 J		0.00512 J	< 0.00355	0.067	<0.00355
Water Quality Parameters (mg/L)																						
Chloride	319	325	306	295	318	256 J	293	277	332	316	538	628 J	493	579	371	303	324 J	260 J	284 J	268 J	320	304
Fluoride	2.95	4.38 J	2.58	2.98	4.06	3.84	19.7	2.9	3.57	3.35	<2.5	<1.65 UJ	1.73	2.02	1.21	3.13	7.2	4.03	3.84	3.08	3.35	3.76
Nitrate	8.41	6.93	6.71			6.9	5.7	5.57			165		153		145	7.02 J	6.78	12.4	9.14 J	5.37		
Nitrate + Nitrite		6.93	6.71	7.05	7.67		5.7	5.57	7.18	7.35		177	153	164 J	145		6.78		9.14	5.37	8.83	8.54
Nitrite	<0.5	<0.4	< 0.4			<0.5	<1	< 0.4			<2.5		< 2		<0.2	<0.5 UJ	<0.4	<0.5	<0.4	< 0.4		
Sulfate	1050 J	928 J	905	881	924	975 J	946 J	985	1020	1070	4080	417	80.1 J	4500	2250	1310 J	1780 J	1280 J	1260 J	1260 J	1320	1410
Sulfide	<0.1	0.021 J	< 0.0131	0.014 J	0.026 J	<0.1	<0.053 UJ	< 0.0131	<0.0131	<0.0131	<0.1	<0.053 UJ	0.023 J	<0.0131	0.023 J	<0.1	<0.0131	<0.1	<0.0131	< 0.0131	<0.02 UJ	0.048 J
Total Alkalinity		384	390	449	386		342	359	385	381		356	350	361	363		362		307	361	368	368
Total Dissolved Solids	2490	2460	2480	2330	2260	2150	1560	2530	2720	2680	8480	8640	8200	8230	8230	2130	2600	2240	2600	2760	2860	3100
Total Organic Carbon	2.94	62.5	5	2.52	2.19	2.77	62.9	3.59	2.75	2.45	3.36	43.9 J	3.61	2.32	2.25	3.42	66.5	2.24	32.9	11.1	2.88	2.73
Total Suspended Solids	77	9	7.4	9.6	11.2	2	7.2	< 3	<3	<3	183	284	24.2	5.8	12.2	<1	4.6	7.5	6	< 3	<3	<3

Notes are included on Page 9.

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	**EP-133**					**EP-135**					**EP-14**		**EP-145**	**EP-147**		**EP-20**			
Sampling Date	*9/30/2010*	*3/7/2011*	*9/8/2011*	*2/29/2012*	*8/22/2012*	*9/29/2010*	*3/7/2011*	*9/7/2011*	*2/28/2012*	*8/27/2012*	*2/24/2012*	*9/5/2012*	*6/5/2012*	*5/8/2012*	*6/6/2012*	*3/8/2011*	*9/9/2011*	*3/2/2012*	*9/6/2012*
Total Metals (mg/L)																			
Aluminum	<0.05	0.215	1.45	0.0574	<0.0225	12.7	3.23	< 0.0225	0.681	<0.0225	0.0464 J	<0.0225	0.0418 J	<0.0225	0.154	1.33	<0.0225	<0.0225	0.101
Antimony	<0.05	0.00197 J	0.00235 J	0.00283 J	<0.00161	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161	0.00391 J	0.00328 J	0.0114	0.0159	0.0137	0.00218 J	<0.00161	<0.00161	<0.00161
Arsenic	2.54	2.2	2.3	2.16	2.73	2.65	2.09	1.9	2.49	2.01	4.38	3.41	0.635	0.59	0.626	1.1	0.699	0.954	1.09
Barium		0.0334	0.0445	0.0344	0.0338		0.0435	0.0118	0.0175	0.0149	0.0156	0.0159	0.0337	0.0286	0.0269	0.0438	0.0197	0.0224	0.0203
Cadmium	<0.005	<0.000854	<0.000854	0.00127 J	<0.000854	<0.005	<0.000854	< 0.000854	<0.000854	<0.000854	0.00173 J	<0.000854	<0.000854	<0.000854	<0.000854	0.126	0.117	0.137	0.0804
Calcium		140	134	154	156	573	506	482	479	527	168	204	125	118	121	284	264	294	268
Chromium	<0.01	<0.0021 UJ	<0.00291 UJ	<0.0014	<0.0014	0.014	<0.0195 UJ	< 0.0014	0.0017 J	<0.0014	0.0133	<0.0014	0.00311 J	<0.0014	<0.0014	0.00174 J	<0.0014	<0.0014	<0.0014
Cobalt		<0.00136	0.00167 J	<0.00136	0.00136 J		0.00408 J	< 0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	0.00272 J	<0.00136	<0.00136	<0.00136
Copper	<0.005	<0.0026 UJ	<0.0168 UJ	0.00214 J	<0.002	0.018	<0.00792 UJ	< 0.002	0.00748 J	<0.002	0.0771	<0.002	0.00377 J	0.00299 J	<0.002	0.139	0.00343 J	0.00751 J	0.0128
Iron	1.02 J	0.697	2.53	0.15 J	0.716	8.87	2.79	< 0.101	0.546	<0.101	0.148 J	<0.101	<0.101	<0.101	0.128 J	1.91	<0.101	<0.101	<0.175 UJ
Lead	<0.005	<0.00159 UJ	0.00748	0.00143 J	0.000865 J	<0.005	<0.00546 UJ	< 0.000733	0.00184 J	<0.000733	0.00385 J	<0.000733	<0.000733	0.000743 J	<0.000733	0.111	0.00293 J	0.00412 J	0.00786
Magnesium		40.4	40.8	39.5	49.2	183	161	149	139	161	69	62.1	70	63.8	70	128	123	113	123
Manganese	0.363	0.33	0.226	0.209	0.512	0.406	0.708	0.142	0.0582	0.296	0.0331 J	0.0133 J	0.0143 J	0.0422 J	0.0208 J	2.45	1.09	1.1	0.234
Mercury		0.000213 J	<0.00013	<0.00013	<0.00013		0.000189 J	< 0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
Molybdenum		0.261	0.292	0.321	0.304		0.217	0.281	0.309	0.329	0.209	0.222	0.386	0.35	0.341	0.107	0.0843	0.0862	0.112
Nickel		0.0303	<0.0313 UJ	0.0314	0.0327		0.0236	0.0132	0.0129	0.0134	0.0199	0.00886	0.00307 J	<0.00217	<0.00217	0.0148	0.0118	0.0116	0.0104
Potassium		39.6	34.8	34.2	38.6	23.5 J	19.6	13.4	20.7	15.3 J	30.7	33.2	31.9	27.3	29.1	47.3	36.9	38.2	40.1
Selenium	0.096	0.0876	0.0814	0.0585	0.0126	0.18	0.202	0.163	0.199	0.149	0.319	0.308	0.149	0.144	0.149	0.369	0.429	0.304	0.395
Sodium		749	696	873	923	1320	1290	1290	1190	1210	695	765	748	709	667	933	852	990	810
Thallium		<0.000693	<0.000693	<0.000693	0.000851 J		<0.000693	< 0.000693	<0.000693	<0.000693	1.16	1.03	0.00454	0.00696	0.00808	0.0101	0.00704	0.00772	0.00774
Zinc		<0.00676 UJ	0.0147 J	0.00809 J	0.00584 J		<0.0118 UJ	< 0.00355	0.0199 J	<0.00355	0.0964	<0.00355	0.0151 J	0.00408 J	<0.00355	0.129	0.0351	0.0437	0.034
Dissolved Metals (mg/L)																			
Aluminum	<0.05					<0.05													
Antimony	<0.05	0.00208 J	<0.00161	0.00274 J	0.00161 J	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161	0.00352 J	0.00311 J	0.00984	0.018	0.0131	<0.00161	<0.00161	<0.00161	<0.00161
Arsenic	2.12	2.19	<2.17 UJ	2.3	2.68	2.34	1.69	1.9	2.56	2.01	3.76	3.29	0.601	0.6	0.596	0.958	0.716	1.03	1.1
Barium		0.0285	<0.0311 UJ	0.0335	0.0331		0.0151	0.0156	0.0129	0.0141	0.0158	0.0158	0.0322	0.0304	0.0246	0.027	0.0201	0.0213	0.0182
Cadmium	<0.005	<0.000854	<0.000854	0.00148 J	<0.000854	<0.005	<0.000854	< 0.000854	0.00136 J	<0.000854	0.00154 J	<0.000854	<0.000854	<0.000854	<0.000854	0.0751	0.112	0.135	0.0805
Calcium	158					511													
Chromium	<0.01	<0.0014	<0.0014	<0.0014	<0.0014		<0.0014	< 0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
Cobalt		<0.00136	0.00241 J	0.00184 J	0.00176 J		<0.00136	< 0.00136	0.00137 J	<0.00136	0.00236 J	<0.00136	0.00144 J	<0.00136	0.00177 J	<0.00136	<0.00136	<0.00136	<0.00136
Copper	<0.005	<0.00115	<0.002	<0.002	<0.002	<0.005	<0.00178 UJ	0.00227 J	0.00514 J	<0.002	0.075	<0.002	0.00287 J	0.00305 J	<0.002	0.00117 J	<0.002	0.00419 J	<0.002
Iron	0.197	0.275	<0.922 UJ	<0.101	0.536	<0.01	0.163 J	0.374	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	0.167 J	<0.101	<0.101	<0.101
Lead	<0.005	<0.000733	<0.000733	<0.000733	0.000736 J	<0.005	<0.000733	0.00105 J	<0.000733	<0.000733	0.00125 J	0.0011 J	<0.000733	<0.000733	<0.000733	<0.000733	0.0013 J	0.00203 J	0.000954 J
Magnesium	46.9					162													
Manganese	0.339					0.116													
Mercury		0.00017 J	<0.00013	<0.00013	<0.00013		0.00017 J	< 0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	0.000156 J	<0.00013	<0.000249 UJ	<0.00013	<0.00013	<0.00013
Molybdenum		0.252	<0.265 UJ	0.319	0.301		0.307	0.284	0.29	0.337	0.195	0.226	0.366	0.356	0.329	0.0964	0.0836	0.0871	0.11
Nickel		0.0296	0.0279	0.0303	0.0298		0.0178	0.0145	0.0126	0.0135	0.0121	0.00881	<0.00217	<0.00217	<0.00217	0.0116	0.0127	0.0119	0.0112
Potassium	41.8					17.3													
Selenium	0.099	0.0947	0.0271	0.0599	0.0119	0.164	0.162	0.16	0.186	0.148	0.3	0.287	0.143	0.147	0.148	0.33	0.443	0.309	0.367
Silica													29.5	29.6	28.7				
Sodium	812					1260													
Thallium		<0.000693	<0.000693	<0.000693	0.00178 J		<0.000693	< 0.000693	<0.000693	<0.000693	1.32	1.04	0.00443	0.00627	0.00686	0.00678	0.00721	0.00777	0.00766
Zinc		<0.00355	0.00393 J	0.0118 J	0.00592 J		<0.00355	0.00399 J	0.0182 J	<0.00355	0.109	<0.00355	0.00665 J	<0.00355	<0.00355	<0.0206 UJ	0.0357	0.0472	0.0282
Water Quality Parameters (mg/L)																			
Chloride	285	312	322	341	348	972 J	1170	951 J	945	696	291	301	366	340	377	394 J	364	353	372
Fluoride	2.68	2.8	2.64	3.2	0.344	<2.5	8.15	1.77	2.08	2.53	2.2	2.42	2.32	3.4	3.86	<1.51 UJ	1.42	1.77	1.98
Nitrate	<0.5	<0.515	<0.206 UJ			80.4	67	54.2 J				12.7					69.9 J		
Nitrate + Nitrite		<1	<0.4 UJ	2	<0.8		67	54.2 J	57.6	<0.2	12.1	12.7	6.44		6.07	64.5	69.9 J	64.1	65.5
Nitrite	<0.5	<1	<0.4 UJ			<2.5	<1	< 0.4				<0.2					<1 UJ		
Sulfate	1240	1150	1330	1240	1310	2690 J	3370 J	2970 J	2940	1890	1730	1680	1160		1160	2090	2480	1700	2080
Sulfide	<0.1	<0.029 UJ	0.163	0.02 J	<0.0131	<0.1	<0.286 UJ	0.02 J	<0.029 UJ	0.059	<0.0131	<0.0131	0.021 J	<0.0131	0.017 J	<0.031 UJ	<0.0131	0.023 J	<0.02 UJ
Total Alkalinity		382	330	388	386		298	286	304	263	411	386	407	419	400	287	299	261	283
Total Dissolved Solids	3020	2840	2870	2940	3070	5890	6520	6240	6490	6120	3410	3460	2770	2610	2670	4680	4880	4480	4350
Total Organic Carbon	3.21	40.2 J	13.7	2.85	<3.93 UJ	2.62	52	9.83	2.77	2.79	2.07	2.82	3.47	2.88	3.8	35.2 J	<3.97 UJ	3.06	<2.63 UJ
Total Suspended Solids	2.5	10.8 J	56.8	4.8	<3	203	293	12	18.2	<3	3.2	3.6	<3		10.8	36.8	3.4	<3	8.2

Notes are included on Page 9.

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	EP-4					EP-49					EP-51					EP-52				
Sampling Date	*9/30/2010*	*3/7/2011*	*9/8/2011*	*2/29/2012*	*8/22/2012*	*9/22/2010*	*3/4/2011*	*8/31/2011*	*2/23/2012*	*9/5/2012*	*9/22/2010*	*3/3/2011*	*9/1/2011*	*2/23/2012*	*9/5/2012*	*9/22/2010*	*3/4/2011*	*8/31/2011*	*2/23/2012*	*9/5/2012*
Total Metals (mg/L)																				
Aluminum	0.226	0.0929 J	<0.0225	0.0337 J	0.0421 J	1.23	<0.0752 UJ	< 0.0225	<0.225	<0.0225	0.635	0.912	0.0532	<0.225	<0.0225	<0.05	<0.0508 UJ	< 0.0225	0.318 J	<0.0225
Antimony	<0.05	<0.00161	<0.00161	<0.00161	0.00202 J	2.91	1.33	2.15	1.49	1.25	<0.05	0.00838	0.00455 J	0.00504	0.00423 J	0.079	<0.00161	0.0678	0.0864	0.0626
Arsenic	0.096	0.278	<0.00394 UJ	0.267	0.357	84.1	22.8	25.2	16.3	15.2	0.224	0.23	0.0439	0.0462 J	0.0368	0.566	<0.00109	0.298	0.439	0.193
Barium		0.0933	<0.00081	0.127	0.108		<0.0107 UJ	<0.00679 UJ	0.00684	0.00382 J		0.0234	0.0226	0.0172	0.0196		<0.00081	0.0149	0.026	0.0152
Cadmium	<0.005	<0.000854	<0.000854	<0.000854	<0.000854	0.152 J	0.0698	0.0359	0.0576	0.0656	0.047 J	0.0315	0.0307	0.0191	0.0319	0.155 J	<0.000854	0.28	0.353	0.331
Calcium		116	<0.198	140	149	536	478	551	409	506	840	843	921	596	886	486	492	544	441	536
Chromium	<0.01	<0.0014	<0.0014	<0.0014	<0.0014	0.15	<0.0066 UJ	< 0.0014	<0.0014	<0.0014	4.46	1.54	0.635	0.458	0.599	0.064	<0.0014	0.167	0.0641	0.00321 J
Cobalt		<0.00136	<0.00136	<0.00136	<0.00136		0.00424 J	0.00359 J	0.00604	0.00447 J		0.0284	0.0213	0.0225	0.0295		<0.00136	0.0884	0.097	0.0867
Copper	0.016 J	<0.00554 UJ	<0.002	0.0053 J	0.013	0.982	0.121	0.049	0.198	0.0858	0.23	0.171	0.127	0.114	0.0787	0.249	<0.00115	0.224	0.828	0.267
Iron	0.427 J	0.147 J	<0.101	<0.101	0.481	57.2	8.18	1.88	0.124 J	<0.101	8.07	5.39	5.21	7.19	8.24	0.861 J	<0.101	2.52	2.01	<0.101
Lead	<0.005	<0.00202 UJ	<0.000733	0.00208 J	0.00283 J	0.04	0.00302 J	0.00121 J	<0.000733	<0.000733	0.021	0.0191	0.0065	0.00896	0.00171 J	0.124	<0.000733	0.165	0.558	0.0702
Magnesium		35.2	<0.113	38	49.1	164	152	142	128	131	694	732	747	505	628	254	320	395	317	344
Manganese	0.242	1.23	<0.0116	1.43	1.62	2.83	2.08	1.42	1.85	1.77	1.46	1.68	0.913	0.94	1.25	4.86	6.97	7.13	6.88	7.02
Mercury		<0.00013	<0.00013	<0.00013	<0.00013		0.000205 J	0.000309 J	0.000728 J	<0.00013		<0.00013	0.000164 J	<0.00013	<0.00013		0.00171 J	0.000625 J	0.00714	0.00527
Molybdenum		0.0509	<0.0014	0.0316	0.0385		2.14	2.19	1.71	1.79		0.0211	0.0161	0.0133	0.0173		<0.0014	0.0654	0.0676	0.0576
Nickel		<0.00217	<0.00348 UJ	<0.00217	0.00271 J		<0.0166 UJ	0.0161	0.0177	0.0181		2.74	1.74	1.52	2.2		<0.00217	5.07	5.05	4.53
Potassium		23.8	<0.407	27.4	28.9	257	248	215	175	208	58.3	56.4 J	50.8	40.5	49.2	23.5 J	27.4	21.5	19.6	21
Selenium	<0.02	<0.00108	<0.00108	<0.00108	0.0013 J	0.665	0.615	0.459	0.743	0.716	0.199	0.324	0.22	0.241	0.201	0.252	<0.00108	0.325	0.37	0.319
Sodium		543	<0.727	399	732	1370	5620 J	1330	1250	1180	1510	1760	1610	1260	1420	1350	1940	2260	1950	2010
Thallium		<0.000693	<0.000693	<0.000693	0.0013 J		0.0157	0.0153	0.0124	0.0138		0.00287	0.00201	0.0023	0.00545		<0.000693	0.0165	0.0209	0.0187
Zinc		<0.00959 UJ	<0.00355	0.00998 J	0.0053 J		11.2	13.3	9.28	8.38		0.397	0.228	0.233	0.201		<0.00355	1.8	2.44	1.74
Dissolved Metals (mg/L)																				
Aluminum	<0.05					0.648					0.633					<0.05				
Antimony	<0.05	<0.00161	<0.00161	<0.00161	0.00182 J	2.08	1.5 J	2.16	1.44	1.26	<0.02	0.00752	0.00375 J	0.00508	0.00397 J	0.058	0.0633	0.0607	0.0715	0.0754
Arsenic	0.094	<0.273 UJ	<0.304 UJ	0.286	0.362	29.8	14.7 J	24.5	18.4	21	0.01	0.104	0.00723	0.0236 J	0.0189	0.459	0.221	0.0801	0.16	0.458
Barium		0.0926	<0.0877 UJ	0.126	0.105		<0.00428 UJ	0.00769	0.00712	0.00622		0.0202	0.0194	0.0168	0.02		<0.0138 UJ	0.0137	0.0181	0.0225
Cadmium	<0.005	<0.000854	<0.000854	<0.000854	<0.000854	0.091	0.0533	0.0359	0.0575	0.072	0.045	0.0317	0.0291	0.0205	0.0315	0.141	0.241	0.258	0.327	0.353
Calcium	153					519					829					452				
Chromium	<0.01	<0.0014	<0.0014	<0.0014	<0.0014	<0.001	<0.0014	< 0.0014	0.00403 J	0.00369 J	<0.001	0.0402	0.0718	0.257	0.255	0.005	<0.0251 UJ	0.0139	0.0154	0.0473
Cobalt		<0.00136	<0.00136	<0.00136	<0.00136		0.00398 J	0.00385 J	0.00422 J	0.0036 J		0.0291	0.0199	0.0218	0.0291		0.0885	0.0846	0.0969	0.0857
Copper	<0.005	<0.00182 UJ	0.0023 J	<0.002	0.00413 J	0.022	<0.0211 UJ	0.0146	0.245	0.153	0.14	0.0461 J	0.0992	0.0843	0.0702	0.187	0.15	0.162	0.409	0.588
Iron	<0.01	<0.101	<0.191 UJ	<0.101	0.406	0.141	<0.101	0.278	2.17	4.24	0.049	2.2	2.75	6.17	7.95	0.023	<0.449 UJ	0.246 J	0.442	1.67
Lead	<0.005	0.00154 J	<0.000733	<0.000733	<0.000733	0.021	<0.000733	< 0.000733	0.00132 J	0.00201 J	0.013	0.00166 J	< 0.000733	0.00286 J	<0.000733	0.068	0.0169	0.0106	0.0817	0.673
Magnesium	26.1					152					629					250				
Manganese	0.226					2.31					1.26					4.82				
Mercury		0.000146 J	<0.00013	<0.00013	<0.00013		<0.00013	0.000372 J	0.000726 J	<0.00013		<0.00013	0.000234 J	<0.00013	<0.00013		0.000412 J	0.00142 J	0.00107 J	0.000458 J
Molybdenum		0.051	<0.0562 UJ	0.0318	<0.0414 UJ		2.16 J	2.48	1.6	1.79		0.0175	0.0124	0.0125	0.013		0.0463	0.053	0.0566	0.0752
Nickel		<0.00217	<0.00217	<0.00217	0.00226 J		<0.0151 UJ	<0.017 UJ	0.0188	0.0168		2.83	1.61	1.84	2.17		5.62	5.27	6.12	4.44
Potassium	14.6					246					43.8					23.1				
Selenium	<0.02	<0.00108	<0.00187 UJ	<0.00108	0.00129 J	0.595	0.569 J	0.49	0.705	0.725	0.192	0.306	0.233	0.254	0.203	0.243	0.233	0.318	0.333	0.325
Silica																				
Sodium	205					1330					1480					1340				
Thallium		<0.000693	<0.000693	<0.000693	0.0023		<0.0118 UJ	0.0158	0.0134	0.0155		0.00288	0.00204	0.00244	0.00518		<0.0132 UJ	0.0155	0.0205	0.0205
Zinc		<0.00355	<0.00355	0.00606 J	<0.00355		9.01 J	12.2	10.1	9.94		0.269 J	0.204	0.23	0.192		1.46	1.64	2.27	1.82
Water Quality Parameters (mg/L)																				
Chloride	207	443	522	440	457	399	364	365	393	249	4540	5660	4000	3150	2060	766	1230	1040	1150	583
Fluoride	0.76	1.72	1.92	1.46	0.154	5.1	24.2 J	5.7	4.44	5.5	<2.5	1.53	0.482	0.569	0.712	5.03	19.4	4.56	4.88	5.8
Nitrate	<0.5	<0.515	<0.206 UJ			22.6	15.5 J	4.52		16.3	142	222 J	124		106	153	248	190		120
Nitrate + Nitrite		<1	<0.4 UJ	<0.8	1.38 J		15.5 J	4.52	6.69	16.3		222 J	124	97.8	106		248	190	112	120
Nitrite	<0.5	<1	<0.4 UJ			<2.5	<1	< 1		<0.2	<2.5	<5 UJ	< 2		<20	<2.5	<1	< 1		<0.2
Sulfate	397	684 J	915	686	854	4070	3490	3470	3850	2190	2320	4590	2050	2450	1210	4540	3110	4950	4730 J	2300
Sulfide	<0.1	<0.034 UJ	0.036 J	0.018 J	0.05		<0.0131	0.035 J	<0.0131	0.044 J		0.025 J	0.027 J	<0.0131	0.015 J		<0.0131	0.027 J	<0.0131	0.014 J
Total Alkalinity		239	311	263	315		637	871	661	683		228	187	171	188		511	573	600	604
Total Dissolved Solids	1220	2060	2590	2050	2310	6950	7380	7300	7390	6880	10800	9770	11300	9930	11400	8650	9940	10800	10400	10600
Total Organic Carbon	4.24	21.7	<7.11 UJ	1.99	6.11	10.8	115 J	11.1	6.26	6.34	<1	38.3	3.5	1.17	1.46	5.32	131	10	5.6	5.64
Total Suspended Solids	5.5	4.2	<3	<3	7.6	262	56	13.6	15.2	30.8	70	9	16.8	22.3	35	4	55.6	10.4	29	24.4

Notes are included on Page 9.

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	EP-54					EP-58					EP-6					EP-62				
Sampling Date	*9/22/2010*	*3/4/2011*	*8/31/2011*	*2/23/2012*	*8/28/2012*	*10/4/2010*	*2/28/2011*	*9/7/2011*	*2/28/2012*	*8/27/2012*	*9/30/2010*	*3/7/2011*	*9/8/2011*	*2/29/2012*	*8/22/2012*	*9/29/2010*	*3/7/2011*	*9/7/2011*	*2/28/2012*	*8/27/2012*
Total Metals (mg/L)																				
Aluminum	0.06	<0.578 UJ	0.0552	<0.225	0.0274 J	1.55	0.0624 J	< 0.0225	<0.0225	<0.0225	<0.05	0.0663 J	<0.0225	0.0289 J	<0.0225	<0.05	<0.0072	< 0.0225	<0.0225	<0.0225
Antimony	<0.05	<0.00161	0.0714	0.0657	0.0665	<0.05	0.00204 J	0.00224 J	<0.00161	<0.00161	<0.05	0.0169	0.0047 J	0.00873	0.0039 J	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161
Arsenic	7.67	<0.00109	8.18	7.98	8.44	16.3	24.5	24.6	1.87	13.8	0.026	<0.0252 UJ	<0.0161 UJ	0.0167	0.0225	1.65	1.39	1.35	1.31	1.41
Barium		<0.00081	0.0201	0.0209	0.0189		0.0299	0.0253	0.0396	0.0344		0.185	0.0332	0.0219	0.0502		0.0223	0.0194	0.021	0.0233
Cadmium	0.269 J	<0.000854	0.431	0.448	0.383	<0.005	<0.000854	< 0.000854	<0.000854	<0.000854	<0.005	<0.000854	<0.000854	<0.000854	<0.000854	<0.005	<0.000854	0.000983 J	<0.000854	<0.000854
Calcium	409	471	540	410	510	474	452 J	508	525	541		171	168	95.5	126	162	136	128	148	152
Chromium	<0.01	<0.0014	0.00497 J	0.01	0.0187	0.233	0.00791	< 0.0014	0.0409	0.0221	<0.01	<0.0014	<0.0014	<0.0014	<0.0014	<0.01	<0.00332 UJ	< 0.0014	<0.0014	<0.0014
Cobalt		<0.00136	0.0214	0.0213	0.0193		0.0193	0.0192	0.00244 J	0.00394 J		0.0186	0.00207 J	<0.00136	0.00289 J		<0.00136	< 0.00136	<0.00136	<0.00136
Copper	0.228	<0.00115	0.331	0.296	0.238	0.019	<0.00115	< 0.002	<0.002	<0.002	<0.005	<0.0106 UJ	<0.002	<0.002	<0.002	0.008	<0.00122 UJ	0.00222 J	0.00265 J	<0.002
Iron	0.638 J	<0.101	1.16	0.467	0.304	5.43	1.79	2.16	20.3	13.3	0.081 J	0.546	<0.101	<0.101	<0.101	0.287 J	<0.101	< 0.101	<0.101	<0.101
Lead	<0.005	<0.000733	0.00413 J	0.00131 J	0.00139 J	<0.005	<0.000733	< 0.000733	0.00103 J	<0.000733	<0.005	<0.00516 UJ	<0.000733	<0.000733	<0.000733	<0.005	<0.000733	0.000799 J	0.00132 J	<0.000733
Magnesium	167	184	195	163	192	227	211	197	217	224		60.7	56.9	33.8	46.5	73.6	60	60.8	57.8	68.5
Manganese	1.96	2.91	2.75	3.12	2.73	10.8	11.5	12.2	8.41	11.8	1.31	5.31	1.01	0.577	1.81	<0.005	<0.0027	< 0.0116	<0.0116	<0.0116
Mercury		<0.00013	0.00019 J	0.000504 J	0.000222 J		0.00042 J	< 0.00013	0.000171 J	<0.00013		<0.00013	<0.00013	<0.00013	<0.00013		0.000183 J	< 0.00013	<0.00013	<0.00013
Molybdenum		<0.0014	1.64	1.74	2.04		0.991	0.799	0.264	0.667		0.103	0.161	0.126	0.192		0.542	0.514	0.574	0.597
Nickel		<0.00217	0.138	0.149	0.125		0.128 J	0.093	0.234	0.0963		0.0116	<0.00557 UJ	0.003 J	0.0043 J		0.00458 J	0.0041 J	0.00328 J	0.00364 J
Potassium	251	311	266	242	300	194	225	172	177	196 J		20.1	21.1	12.7	19	64.4	52.3	44.1	60.7	52.4 J
Selenium	0.057	<0.00108	0.0731	0.0827	0.0737	<0.02	<0.024 UJ	0.0135	0.00824	0.0106	<0.02	0.00783	<0.00226 UJ	0.00155 J	<0.00108	0.216	0.192	0.181	0.169	0.164
Sodium	1270	1530	1620	1480	1640	1390	1350	1300	1290	1300		956	828	832	1020	710	611	609	761	600
Thallium		<0.000693	0.124	0.122	0.118		<0.000693	< 0.000693	<0.000693	<0.000693		<0.000693	<0.000693	<0.000693	0.00446		<0.000693	< 0.000693	<0.000693	<0.000693
Zinc		<0.00355	8.48	8.89	6.29		<0.00355	0.00585 J	0.00475 J	<0.00355		<0.0134 UJ	<0.00355	0.00439 J	<0.00355		<0.00355	0.0196 J	<0.00355	<0.0121 UJ
Dissolved Metals (mg/L)																				
Aluminum	<0.05					<0.05					<0.05					<0.05				
Antimony	0.021	0.058	0.0698	0.0574	0.0651	<0.05	0.00183 J	0.00219 J	<0.00161	<0.00161	<0.05	0.00698	0.00487 J	0.00819	0.00368 J	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161
Arsenic	7.47	6.86	7.76	7.67	7.93	16.3	24.8	24.1	1.92	17.3	0.023	<0.0129 UJ	<0.0159 UJ	0.0162	0.0238	1.25	1.42	1.35	1.4	1.41
Barium		<0.0152 UJ	0.0207	0.0182	0.0191		0.0305	0.0276	0.0381	0.031		0.0353	<0.0328 UJ	0.0197	0.0517		0.0222	0.0196	0.0216	0.0225
Cadmium	0.255	0.362	0.412	0.401	0.373	<0.005	<0.000854	< 0.000854	0.00117 J	<0.000854	<0.005	<0.000854	<0.000854	<0.000854	<0.000854	<0.005	<0.000854	0.00124 J	0.00251	<0.000854
Calcium	379					469					231					121				
Chromium	<0.001	<0.0014	< 0.0014	0.00144 J	0.00166 J	<0.01	<0.0014	0.0055	0.0287	0.00877	<0.01	<0.0014	<0.0014	<0.0014	<0.0014		<0.0014	< 0.0014	<0.0014	<0.0014
Cobalt		0.018	0.022	0.0211	0.0198		0.018	0.0195	0.00331 J	0.00823		<0.00136	0.00208 J	<0.00136	0.00341 J		<0.00136	< 0.00136	<0.00136	<0.00136
Copper	0.139	0.214	0.274	0.266	0.211	<0.005	<0.00115	0.00202 J	0.00932 J	<0.002	<0.005	<0.00115	<0.002	<0.002	<0.002	<0.005	<0.00115	0.00258 J	<0.002	<0.002
Iron	0.021	<0.101	< 0.101	<0.101	<0.101	1.66	2.06	2.65	20.2	10.8	0.018	<0.101	<0.101	<0.101	<0.101	<0.01	<0.101	< 0.101	<0.101	<0.101
Lead	<0.005	<0.000733	< 0.000733	<0.000733	<0.000733	<0.005	<0.000733	0.0011 J	0.00323 J	<0.000733	<0.005	<0.000733	<0.000733	<0.000733	<0.000733	<0.005	<0.000733	0.000831 J	<0.000733	<0.000733
Magnesium	152					224					82.1					54.5				
Manganese	1.69					10.5					1.23					<0.005				
Mercury		0.000312 J	0.000293 J	0.000378 J	0.0002 J		0.000396 J	< 0.00013	0.00016 J	<0.00013		0.000198 J	<0.00013	<0.00013	<0.00013		0.000138 J	< 0.00013	<0.00013	<0.00013
Molybdenum		1.22	1.77	1.59	2.02		1	0.866	0.237	0.708		0.0914	<0.159 UJ	0.124	0.206		0.562	0.514	0.595	0.574
Nickel		0.132	0.138	0.136	0.113		0.131 J	0.0993	0.233	0.0962		0.0078	0.00526	0.00247 J	0.00457 J		0.00329 J	0.00489 J	0.00339 J	0.00382 J
Potassium	251					189					28.3					45.3				
Selenium	0.054	0.0624	0.0792	0.0772	0.0806	<0.02	0.0216	0.0165	0.00765	0.0106	<0.02	0.00653	<0.0019 UJ	0.00132 J	0.00172 J	0.178	0.19	0.18	0.165	0.172
Silica																				
Sodium	1250					1380					961					560				
Thallium		0.103	0.122	0.118	0.121		<0.000693	< 0.000693	<0.000693	<0.000693		<0.000693	<0.000693	<0.000693	0.00417		0.00122	< 0.000693	<0.000693	<0.000693
Zinc		6.39	8.53	8.55	6.28		0.00375 J	0.00648 J	0.0104 J	<0.00355		<0.00355	<0.00355	<0.00355	<0.00355		<0.00355	0.0236 J	<0.00355	<0.00355
Water Quality Parameters (mg/L)																				
Chloride	375	875	496	704	407	631	588 J	685 J	911	558	567	706	615	413	436	286	354	300 J	331	276
Fluoride	6.82	54	8.25	8.64	9.9	5.32	5.13	5.65	4.13	5.85	1.68	1.38	2.34	1.89	0.334	3.47	18	3.2	3.07	3.63
Nitrate	18.1	32.2	19.5			<2.5	<0.412	< 0.206			<0.5	<0.875 UJ	<0.206 UJ			3.02	2.41 J	2.22		
Nitrate + Nitrite		32.2	26.6	19.7	35.4		<0.8	< 0.4	<1	<2		<1	<0.4 UJ	<0.8	<0.8		2.41 J	2.22	3.58	1.67
Nitrite	<2.5	<1	7.09			<2.5	<0.8	< 0.4			<0.5	<1	<0.4 UJ			<0.5	<1	< 0.4		
Sulfate	3010	3990	3740	4770	2630	3510	3270 J	4200 J	4520	3030	1650	1950 J	1580	823	1310	1160	1200 J	1090 J	1120	948
Sulfide		<0.0131	0.085	<0.0131	0.022 J	<0.1	<0.0131	< 0.0131	<0.026 UJ	0.036 J	<0.1	<0.027 UJ	0.055	0.023 J	0.319	<0.1	<0.034 UJ	< 0.0131	<0.025 UJ	0.022 J
Total Alkalinity		653	695	684	680		972	1100	736	900		295	335	303	348		334	359	363	371
Total Dissolved Solids	5300	8050	8410	8130	8050	7600	7730	7490	7340	7590	4060	3660	3490	2390	3170	2500	2590	2580	2650	2560
Total Organic Carbon	12.4	132	13.3	10.2	9.69	14.1	213	10.7	15.8	13.9	2.21	28.5	12.6	1.78	4.95	3.14	57.7	6.7	2.75	2.86
Total Suspended Solids	2.5	65.6	7.6	3	4	55	11.8	8.8	41	25	<1	21.8	<3	<3	3.8	<1	2.4	< 3	<3	<3

Notes are included on Page 9.

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	EP-68					EP-7					EP-71				EP-75				
Sampling Date	*9/21/2010*	*3/4/2011*	*9/6/2011*	*2/27/2012*	*8/29/2012*	*9/30/2010*	*3/7/2011*	*9/8/2011*	*2/29/2012*	*8/22/2012*	*3/3/2011*	*9/1/2011*	*2/24/2012*	*8/29/2012*	*9/21/2010*	*3/1/2011*	*8/31/2011*	*2/23/2012*	*8/28/2012*
Total Metals (mg/L)																			
Aluminum	<0.05	<0.777 UJ	0.257	0.0945	0.181	<0.05	0.0697 J	<0.0225	<0.0225	<0.0225	0.131 J	0.33 J	0.1	0.0771 J	0.226	0.551	0.892	<0.45	0.104
Antimony	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161	<0.05	<0.00161	<0.00161	<0.00161	<0.00161	<0.00161	< 0.00161	<0.00161	<0.00161	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161
Arsenic	<0.01	<0.00865 UJ	0.00607	<0.0109	<0.0115 UJ	0.048	<0.0456 UJ	<0.05 UJ	0.0253	0.0483	0.196	0.131	0.154	0.144	38.6	59.6	51.1	57	53.3
Barium		<0.0207 UJ	0.0137	0.0114	0.013		0.0526	0.0444	0.0543	0.0555	0.016	0.0201	0.0141	0.0145		0.0732	0.0626	0.0441	0.051
Cadmium	<0.005	0.00218	0.00235	<0.000854	<0.000854	<0.005	<0.000854	<0.000854	<0.000854	<0.000854	<0.000854	< 0.000854	0.00101 J	<0.000854	<0.005	0.0163	0.00158 J	0.0165	0.00394
Calcium	287	389	396	345	405		141	127	204	204	340	409	361	392	295	368	430	308	417
Chromium	<0.01	<0.00215 UJ	0.00488 J	<0.014	0.00284 J	<0.01	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	0.00197 J	0.00759	<0.0014	<0.01	0.0233	0.0453	0.00845	<0.0014
Cobalt		<0.00136	< 0.00136	<0.0136	<0.00136		<0.00136	<0.00136	0.0019 J	<0.00136	0.00164 J	0.00169 J	0.00174 J	<0.00136		0.00629	0.0079	0.00555	0.00511
Copper	<0.005	<0.00158 UJ	0.00238 J	<0.02	0.00507 J	<0.005	<0.00606 UJ	<0.002	0.00249 J	<0.002	<0.00115	0.0043 J	0.0745	0.00298 J	0.022	0.0461	0.0086 J	0.115	0.0123
Iron	0.032	<0.602 UJ	0.27	<1.01	0.16 J	0.736 J	1.58	<0.637 UJ	1.01	1.19	0.101 J	0.375 J	0.157 J	<0.101	0.434	0.596	1.17	0.115 J	<0.101
Lead	<0.005	<0.000733	0.00102 J	0.00177 J	<0.000733	<0.005	<0.00263 UJ	<0.000733	<0.000733	<0.000733	<0.000733	0.00288 J	0.00186 J	<0.000733	<0.005	0.00464 J	0.00514	0.00187 J	0.00216 J
Magnesium	132	167	153	144	165		45.6	43.1	53	60.7	186	176	186	185	171	216	204	157	154
Manganese	<0.005	<0.00823 UJ	< 0.0116	<0.0116	<0.0116	0.973	1.01	1.4	1.75	2.22	0.0416 J	0.0431 J	0.0232 J	0.019 J	1.16	1.65	1.37	1.11	1.06
Mercury		<0.00013	< 0.00013	<0.00013	<0.00013		<0.00013	<0.00013	<0.00013	<0.00013	0.00036 J	0.000381 J	0.000219 J	<0.00013 UJ		0.000208 J	< 0.00013	0.000218 J	<0.00013
Molybdenum		0.213	0.174	0.19	0.242		0.0854	0.099	0.106	0.126	0.165	0.142	0.162	0.175		11.9	10.9	7.3	8.85
Nickel		<0.0052 UJ	0.0129	0.0219 J	0.00509		0.00317 J	<0.00217	0.00363 J	0.00378 J	0.0115	0.015 J	0.0171	0.00962		0.0281	0.0464	0.0208	0.0161
Potassium	17.9 J	21	15.1	15.5	16.5		14.3	12	13.7	13.7	18.7 J	18.2	19	18.7	720	962	1100	853	1010
Selenium	0.311	0.358	0.329	0.321	0.344	<0.02	0.00138 J	<0.00108	0.00114 J	0.00234 J	0.252	0.253	0.234	0.24	4.29	6.72	6.47	5.91	5.05
Sodium	634	879	763	1280	897		800	754	1350	1490	1070	983	1020	984	2340	7720	3230	2800	2640
Thallium		<0.000693	< 0.000693	<0.000693	0.00287		<0.000693	<0.000693	<0.000693	0.00934	<0.000693	< 0.000693	<0.000693	<0.000693		1.24	1.02	0.942	0.941
Zinc		0.0165 J	0.00754 J	0.0426 J	<0.0149 UJ		<0.0473 UJ	<0.00355	0.0142 J	<0.00355	0.00436 J	0.00846 J	0.128	<0.00839 UJ		0.11	0.0302	0.128	<0.0286 UJ
Dissolved Metals (mg/L)																			
Aluminum	<0.05					<0.05									0.088				
Antimony	<0.02	<0.00161	< 0.00161	<0.00161	<0.00161	<0.05	<0.00161	<0.00161	<0.00161	<0.00161	<0.00161	< 0.00161	<0.00161	<0.00161	<0.02	<0.00161	< 0.00161	<0.00161	<0.00161
Arsenic	<0.005	<0.0072 UJ	0.00385 J	0.214	0.00228 J	0.045	<0.0292 UJ	<0.0491 UJ	0.0429	0.0476	0.195	0.138	0.139	0.153	36.3	57.3	55	51.2	51.2
Barium		<0.014 UJ	0.0107	0.0118	0.0111		0.0479	<0.0451 UJ	0.0636	0.0534	0.0131	0.0123	0.0128	0.0138		0.0761	0.051	0.045	0.0473
Cadmium	<0.005	0.00238	0.00239	0.00586	<0.000854	<0.005	<0.000854	<0.000854	<0.000854	<0.000854	<0.000854	< 0.000854	<0.000854	<0.000854	<0.005	0.0167	0.00157 J	0.0152	0.00396
Calcium	276					95.6									291				
Chromium	<0.001	<0.0014	< 0.0014	0.01	<0.0014	<0.01	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	< 0.0014	0.0082	<0.0014	<0.001	<0.0014	< 0.0014	0.00161 J	<0.0014
Cobalt		<0.00136	< 0.00136	0.00265 J	<0.00136		<0.00136	<0.00136	0.00194 J	<0.00136	0.00152 J	0.0016 J	0.00197 J	0.00162 J		0.00621	0.00812	0.00702	0.00566
Copper	<0.005	<0.0016 UJ	< 0.002	0.0401	0.00278 J	<0.005	<0.00498 UJ	<0.002	0.00556 J	<0.002	<0.00201 UJ	0.00311 J	0.0634	<0.002	0.018	0.0524	< 0.002	0.106	0.00984 J
Iron	0.01	<0.101	< 0.101	0.113 J	<0.101	0.344	0.219 J	<0.595 UJ	2.44	1.14	<0.101	< 0.101	0.334	<0.101	<0.01	<0.101	< 0.101	<0.101	<0.101
Lead	<0.005	<0.000733	< 0.000733	0.00134 J	<0.000733	<0.005	<0.000733	<0.000733	0.00232 J	<0.000733	<0.000733	0.00163 J	0.000935 J	<0.000733	<0.005	0.000765 J	< 0.000733	0.000972 J	0.00134 J
Magnesium	130					29.7									166				
Manganese	<0.0025					0.883									1.07				
Mercury		<0.00013	0.00016 J	<0.00013	<0.00013		0.00017 J	<0.00013	<0.00013	<0.00013	0.00041 J	0.000502 J	<0.00013	<0.00013 UJ		0.000183 J	< 0.00013	0.000144 J	<0.00013
Molybdenum		0.218	0.175	0.297	0.214 J		0.083	<0.0967 UJ	0.105	0.13	0.164	0.144	0.138	0.171 J		12.2	12.3	7.07	8.6
Nickel		<0.0043 UJ	0.00931	0.0175	0.00441 J		0.00307 J	<0.00217	0.00368 J	0.00356 J	0.0116	0.0143	0.0128	0.011		0.0245	<0.0208 UJ	0.0185	0.016
Potassium	16.8					11.5									710				
Selenium	0.3	0.334	0.33	2.75	0.331	<0.02	0.00169 J	<0.00108	0.00126 J	0.00163 J	0.251	0.251	0.232	0.253	3.94	7.14	6.52	6.01	5
Silica																			
Sodium	606					700									2300				
Thallium		<0.00138 UJ	< 0.000693	<0.000693	0.00188 J		<0.000693	<0.000693	<0.000693	0.000815 J	<0.000693	< 0.000693	<0.000693	<0.000693		1.24	1.02	0.983	0.893
Zinc		<0.018 UJ	0.00691 J	0.114	0.0144 J		<0.0366 UJ	<0.00355	0.0184 J	<0.00355	0.00436 J	0.00599 J	0.119	0.00594 J		0.0522	0.0229 J	0.135	<0.0278 UJ
Water Quality Parameters (mg/L)																			
Chloride	565	674	631	735	481	325	503	339	920	891	581	458	499	374 J	211	233	218	222	158
Fluoride	0.63	3.02	0.562	0.661	0.803	2.27	1.57	1.73	2.09	0.279	2.96 J	0.751	1.03	1.04 J	8.65	17.3	8.5	12.3	13.3
Nitrate	18.7	13	13.9			<0.5	<0.515	<0.206 UJ			79.4	79.9			115	113	96.4		
Nitrate + Nitrite		13	13.9	14.8	15		<1	<0.4 UJ	<0.8	<0.8	79.4	79.9	79.6	73.2		113	96.4	67	69.1
Nitrite	<0.5 UJ	<1	< 0.4			<0.5	<1	<0.4 UJ			<1	< 1			<2.5 UJ	<1	< 1		
Sulfate	1930	2070	2110	2380	1570	940	1070 J	1400	1560	1610	2340 J	2560	2340	1850 J	8530	9620 J	7130	7820	4600
Sulfide	<0.1	0.029 J	< 0.0131	<0.0131	0.029 J	<0.1	<0.038 UJ	0.313	0.024 J	0.131	<0.0131	0.024 J	<0.0131	0.029 J	<0.1	0.045 J	0.03 J	0.014 J	0.031 J
Total Alkalinity		206	215	213	217		386	396	365	335	262	261	272	268		513	500	488	466
Total Dissolved Solids	3840	4710	4620	4730	4720	2400	3020	2920	4300	4270	5500	5430	5530	5310	16500	16300	15900	12700	12500
Total Organic Carbon	1.54	25.8	<2.55 UJ	1.55	1.7	3.9	59	15.1	3.28	<4.35 UJ	40.4 J	<3.11 UJ	1.55	1.77	11.4	72.1	12.9	7.47	6.94
Total Suspended Solids	4 J	31.2	20.8	10.8	7.2	<1	8.2	<3	3.6	6.6	8.2 J	15.4 J	7.2	5	3.5 J	224	59.6	4.4	7.6

Notes are included on Page 9.

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	EP-77					EP-78						EP-81					EP-84			
Sampling Date	*9/21/2010*	*3/3/2011*	*9/6/2011*	*2/22/2012*	*9/6/2012*	*9/21/2010*	*3/1/2011*	*7/28/2011*	*8/30/2011*	*2/22/2012*	*8/28/2012*	*9/30/2010*	*3/7/2011*	*9/6/2011*	*3/1/2012*	*9/6/2012*	*3/4/2011*	*8/30/2011*	*2/22/2012*	*8/28/2012*
Total Metals (mg/L)																				
Aluminum	5.04	0.836	0.124	0.107	0.242	0.061	0.0214 J	0.36	0.0684	0.0593	0.0814	1.23	33.2	0.122	0.0317 J	0.0268 J	<0.0072	6.99	<0.0225	<0.0225
Antimony	<0.05	0.00438 J	0.00414 J	0.00445 J	0.0039 J	<0.05	0.0262	0.0265	0.0245	0.0214	0.0185	<0.05	0.0418	0.00357 J	0.00342 J	0.00176 J	0.0037 J	0.0115	0.00282 J	0.00682
Arsenic	1.39	2.54	2.06	2.4	2.22	1.93	1.87	1.81	1.98	1.96	1.87	0.38	1.94	0.613	0.749	0.393	<0.0358 UJ	0.0894	0.0241	0.0339
Barium		0.0484	0.0324	0.033	0.0354		0.0395	0.0466	0.0365	0.0375	0.037		0.0256	0.0397	0.0442	0.0454	0.0508	0.0953	0.0457	0.0432
Cadmium	<0.005	<0.000854	0.00276	<0.000854	<0.000854	<0.005	<0.000854	<0.000854	< 0.000854	0.00086 J	<0.000854	<0.005	0.00107 J	0.00124 J	0.00116 J	<0.000854	0.00353	0.0265	0.00309	0.00213
Calcium	104	104	105	117	118	88.2	81.5	84.8	75.7	79.8	86.8		224	116	131	107	189	420	146	148
Chromium	<0.01	0.0646	0.00163 J	0.0137	0.00255 J	<0.01	<0.0014	<0.0014	0.00573	0.00807	<0.0014	0.02	<0.0014	0.00169 J	<0.0014	0.00601	<0.0014	0.00917	<0.0014	<0.0014
Cobalt		0.00173 J	< 0.00136	<0.00136	<0.00136		<0.00136	<0.00136	< 0.00136	<0.00136	<0.00136		<0.00136	< 0.00136	<0.00136	<0.00136	<0.00136	0.00355 J	<0.00136	<0.00136
Copper	0.017	<0.00504 UJ	0.00229 J	0.0336	0.00689 J	0.007	0.00207 J	<0.002	< 0.002	0.0143	0.0028 J	0.029 J	<0.0018 UJ	0.004 J	0.00466 J	0.162	<0.0171 UJ	0.427	0.0497	0.0324
Iron	4.59 J	0.871	0.171 J	0.182 J	<0.27 UJ	0.519	<0.101	0.439	0.11 J	0.11 J	<0.101	1.42	<0.101	0.11 J	<0.101	<0.101	<0.101	6.42	<0.101	<0.101
Lead	0.011 J	0.00128 J	0.00145 J	0.00119 J	0.00252 J	<0.005	0.00154 J	0.00398 J	0.00127 J	0.000982 J	0.000953 J	<0.005	<0.000733	0.000773 J	<0.000733	0.00099 J	0.0261	0.795	0.0231	0.0333
Magnesium	28	28.1	28.9	25.1	30	50.2	49.2	51.7	48.9	43.3	50.1		71.1	50.2	51	49.6	98.3	100	79.9	78.5
Manganese	0.227 J	0.0378	0.0189 J	0.0466 J	0.0337 J	<0.005	0.00301 J	0.0209 J	< 0.0116	<0.0116	<0.0116	0.035	0.698	< 0.0116	<0.0116	<0.0116	<0.00753 UJ	0.299	<0.0116	0.0179 J
Mercury		<0.00013	0.000157 J	<0.00013	<0.00013		<0.00013	<0.00013	< 0.00013	<0.00013	<0.00013		0.00018 J	< 0.00013	<0.00013	<0.00013	<0.00013	< 0.00013	<0.00013	<0.00013
Molybdenum		0.228	0.197	0.22	0.222		0.376	0.344	0.334	0.317	0.308		0.48	0.25	0.32	0.171	0.0109	0.0214	0.0105	<0.022 UJ
Nickel		0.0435	0.00552	0.0104	0.00258 J		<0.00217	<0.00217	0.0049 J	0.00558	<0.00217		0.00404 J	0.0036 J	<0.00217	<0.00217	<0.00217	0.0126	<0.00217	<0.00217
Potassium	19.4	22.5 J	21.8	22.8	23.8	43.3	44.8	44.1	40.2	39.4	41.9		44.2	25.5	30.1	14.6	9.48	5.67	7.17	7.31
Selenium	0.055	0.0766	0.0845	0.108	0.136	0.164	0.166	0.133	0.122	0.132	0.128	0.123	0.219	0.124	0.131	0.116	0.0188	0.0277	0.018	0.0184
Sodium	459	698	658	649	705	604	679	627	636	572	689		383	295	293	170	362	222	316	229
Thallium		<0.000693	< 0.000693	<0.000693	<0.000693		<0.000693	<0.000693	< 0.000693	<0.000693	<0.000693		0.0165	< 0.000693	0.000752 J	<0.000693	<0.000693	< 0.000693	<0.000693	<0.000693
Zinc		0.00373 J	0.00498 J	0.0644	0.00554 J		0.00737 J	0.0207 J	< 0.00355	0.039	<0.00931 UJ		<0.0448 UJ	0.00874 J	0.00831 J	0.152	0.0167 J	0.339	0.0661	<0.026 UJ
Dissolved Metals (mg/L)																				
Aluminum	<0.05					<0.05		<0.0225	< 0.0225			<0.05						< 0.0225		
Antimony	<0.02	0.00407 J	0.00374 J	0.00442 J	0.00361 J	<0.02	0.027	0.0249	0.0241	0.0214	0.0182	<0.05	0.00298 J	0.00357 J	0.00335 J	0.00177 J	0.00295 J	0.00438 J	0.0031 J	0.00623
Arsenic	1.37	2.41	1.98	2.09	2.23	1.9	2.29	1.81	1.96	1.82	1.85	0.219	0.991	0.587	0.743	0.435	<0.0295 UJ	0.0221	0.0261	0.0389
Barium		0.0327	0.028	0.0314	0.0283		0.0382	0.0364	0.0351	0.0373	0.036		0.0345	0.0398	0.04	0.0439	0.0469	0.0304	0.0467	0.0393
Cadmium	<0.005	<0.000854	0.00269	0.000875 J	<0.000854	<0.005	<0.000854	<0.000854	< 0.000854	<0.000854	<0.000854	<0.005	<0.000854	0.00117 J	<0.000854	<0.000854	0.00316	0.00705	0.00335	0.00203
Calcium	94.2					87.9		81.8	75.1			96.9						396		
Chromium	<0.001	<0.0014	< 0.0014	0.00259 J	<0.0014	<0.001	<0.0014	<0.0014	< 0.0014	0.0023 J	<0.0014	<0.01	<0.0014	< 0.0014	<0.0014	0.00471 J	<0.0014	< 0.0014	<0.0014	<0.0014
Cobalt		<0.00136	< 0.00136	0.00164 J	<0.00136		<0.00136	<0.00136	< 0.00136	<0.00136	<0.00136		<0.00136	< 0.00136	<0.00136	<0.00136	<0.00136	< 0.00136	0.0016 J	<0.00136
Copper	<0.005	0.00249 J	< 0.002	0.0237	<0.002	0.005	0.00142 J	0.01	< 0.002	0.00835 J	<0.002	<0.005	<0.00213 UJ	0.00256 J	0.00391 J	0.187	<0.0126 UJ	0.0171	0.0434	0.029
Iron	<0.01	<0.101	< 0.101	<0.101	<0.101	<0.01	<0.101	<0.101	< 0.101	<0.101	<0.101	<0.01	<0.101	< 0.101	<0.101	<0.101	<0.101	< 0.101	<0.101	<0.101
Lead	<0.005	<0.000733	0.000749 J	0.000801 J	<0.000733	<0.005	<0.000733	<0.000733	< 0.000733	<0.000733	<0.000733	<0.005	<0.000733	< 0.000733	<0.000733	<0.000733	0.0213	0.0312	0.0219	0.0168
Magnesium	23.9					50		53.2	48.6			42.9						107		
Manganese	<0.0025 UJ					<0.0025		<0.0116	< 0.0116			<0.005						0.2		
Mercury		<0.00013	0.000155 J	<0.00013	<0.00013		<0.00013	<0.00013	< 0.00013	<0.00013	<0.00013		0.00014 J	< 0.00013	<0.00013	<0.00013	<0.00013	0.000431 J	<0.00013	<0.00013
Molybdenum		0.213	0.19	0.215	0.202		0.364	0.349	0.338	0.318	0.313		0.277	0.244	0.295	0.176	<0.00983 UJ	0.0184	0.011	0.0463
Nickel		0.00285 J	0.00318 J	0.00473 J	<0.00217		<0.00217	<0.00217	< 0.00217	0.00276 J	<0.00217		<0.00217	0.00275 J	<0.00217	<0.00217	<0.00217	< 0.00217	<0.00217	<0.00217
Potassium	17.6					41		44.7	39.9			13.3						4.3		
Selenium	0.053	0.0784	0.0809	0.108	0.137	0.158	0.161	0.131	0.128	0.127	0.127	0.084	0.124	0.123	0.127	0.118	0.0178	0.026	0.0174	0.0182
Silica																				
Sodium	441					600		640				142								
Thallium		<0.000693	< 0.000693	<0.000693	<0.000693		<0.000693	<0.000693	< 0.000693	<0.000693	<0.000693		<0.000693	< 0.000693	0.000937 J	<0.000693	<0.000693	< 0.000693	<0.000693	0.00303
Zinc		<0.00355	< 0.00355	0.0574	0.00383 J		0.00876 J	<0.00355	< 0.00355	0.0311	<0.00596 UJ		<0.0153 UJ	0.00724 J	0.00847 J	0.172	<0.0164 UJ	0.0402	0.061	<0.028 UJ
Water Quality Parameters (mg/L)																				
Chloride	310	345	326	377	390	329	306	303	298	326	341	53.1	178	160	159	67.9	312	332	327	205
Fluoride	3.92	18	2.78	3.66	4.07	2.95	3.66	2.98	2.56	3.22	3.69	1.91	18.8	2.82	3.22	2.4	2.1	0.515	0.736	1.06
Nitrate	0.64 J	1.12 J	0.656 J			9.77	7.91		7.21			4.11	3.62	3.18			6.52	5.08		
Nitrate + Nitrite		1.12 J	0.656 J	2.92	2.99		7.91	7.58 J	7.21	8.48	8.78		3.62	3.18	4.92	5.35	6.52	5.08	7.9	7.4
Nitrite	<0.5 UJ	<1	< 0.4			<0.5	<0.4		< 0.4			<0.5	<1	< 0.4			<1	< 0.4		
Sulfate	1080 J	958	996	1110	1210	1050 J	923	943	930	956	1030	334	706 J	693	678	383	881	1040	867	569
Sulfide	<0.1	<0.0131	0.029 J	<0.0131	<0.019 UJ	<0.1	0.055	0.019 J	0.018 J	0.014 J	0.024 J	<0.1	<0.237 UJ	< 0.0131	0.02 J	<0.014 UJ	<0.0131	< 0.0131	<0.0131	0.021 J
Total Alkalinity		283	315	338	366		352	358	370	381	378		364	289	313	367	280	296	296	252
Total Dissolved Solids	2140	2410	2670	2630	2680	1860	2460	2510	2470	2400	2340	1020	1850	1790	1740	1100	2280	2690	2130	1550
Total Organic Carbon	3.24	43.8	4.3	2.91	<3 UJ	2.66	59.3	35.8	3.42	2.22	2.18	1.74	45.2	<2.71 UJ	1.33	<1.22 UJ	28.1	3.93	1.53	2.61
Total Suspended Solids	263 J	21.6	8.4	4.6	8	2 J	4.2	14	3.4	3.8	6.8	25	543	6	<3	<3	<4.4 UJ	310	<3	<3

Notes are included on Page 9.

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	EP-85					EP-95					MW-1			MW-10D		MW-10S		MW-11D		MW-11S	
Sampling Date	*9/30/2010*	*3/7/2011*	*7/28/2011*	*9/6/2011*	*3/1/2012*	*9/21/2010*	*3/4/2011*	*8/30/2011*	*2/22/2012*	*8/28/2012*	*9/9/2011*	*2/29/2012*	*8/23/2012*	*3/27/2012*	*8/27/2012*	*3/27/2012*	*8/27/2012*	*3/27/2012*	*8/24/2012*	*3/27/2012*	*8/24/2012*
Total Metals (mg/L)																					
Aluminum	<0.05	<0.0072	3.02	< 0.0225	<0.0225	<0.05	<0.0072	0.379	0.235	0.381	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	0.0251 J	<0.0225	0.0613	<0.0225
Antimony	<0.05	0.00274 J	0.0456	0.0388	0.0422	<0.05	<0.00161	< 0.00161	<0.00161	<0.00161	0.00636	0.00871	0.00528	0.00225 J	<0.00161	0.00235 J	<0.00161	0.00286 J	<0.00161	0.00263 J	<0.00161
Arsenic	1.34	0.949 J	1.19	1.22	1.25	<0.01	<0.0101 UJ	0.0093	0.00961	<0.0099 UJ	1.21	1.17	1.15	1.31	1.13	0.242	0.344	0.246	0.296	0.0388	0.0599
Barium		0.581 J	0.0721	0.0342	0.0352		<0.0261 UJ	0.0295	0.0272	0.0274	0.0337	0.0406	0.0409	0.0239	0.0232	0.0345	0.0322	0.0263	0.023	0.0325	0.0282
Cadmium	<0.005	0.00316	<0.000854	< 0.000854	0.00168 J	<0.005	<0.000854	< 0.000854	<0.000854	<0.000854	<0.000854	0.00139 J	<0.000854	0.000863 J	<0.000854	<0.000854	<0.000854	<0.000854	<0.000854	<0.000854	<0.000854
Calcium		119	133	109	98.9	34	35.9	36.9	39.7	43.8	101	130	139	137	150	135	151	120	132	129	136
Chromium	<0.01	<0.0489 UJ	0.00542	0.00197 J	0.00239 J	<0.01	<0.0014	0.0039 J	0.0306	0.0131	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
Cobalt		0.012	<0.00136	< 0.00136	<0.00136		<0.00136	< 0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	0.00148 J	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136
Copper	<0.005	0.134	0.00606 J	< 0.002	<0.002	0.009	<0.00115	0.00858 J	0.133	0.0111	<0.002	<0.002	<0.002	0.00362 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron	0.461 J	28 J	2.87	< 0.101	<0.101	0.025	<0.101	0.377	0.495	0.461	<0.101	<0.101	<0.101	<0.101	<0.101	0.125 J	<0.101	0.378	0.168 J	0.133 J	<0.101
Lead	<0.005	0.0562 J	0.0142	< 0.000733	<0.000733	<0.005	<0.000733	0.00543	0.0013 J	0.00152 J	<0.000733	<0.000733	<0.000733	0.00101 J	0.00102 J	0.000981 J	<0.000733	<0.000733	<0.000733	<0.000733	<0.000733
Magnesium		60.2	67.7	58.4	47.9	61.5	64.1	66.4	62.2	78	46	47.1	61	54.3	70.4	45.3	65	38.5	58.7	41.6	62.3
Manganese	<0.005	<0.0027	0.0888	< 0.0116	<0.0116	<0.005	<0.0027	< 0.0116	<0.0116	<0.0116	0.139	0.0626	0.183	0.0198 J	0.0198 J	0.159	0.0694	0.155	0.143	0.0898	0.113
Mercury		<0.00013	<0.00013	0.000132 J	<0.00013		<0.00013	< 0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
Molybdenum		0.307 J	0.662	0.588	0.572		0.0444	0.0441	0.0455	0.0499	0.489	0.454	0.474	0.495	0.553	0.498	0.537	0.551	0.624	0.659	0.684
Nickel		0.0316 J	0.00235 J	< 0.00217	<0.00217		<0.00217	0.00251 J	0.0184	0.00687	<0.00217	0.00313 J	0.00363 J	0.00239 J	<0.00217	0.00223 J	0.00237 J	<0.00217	<0.00217	0.00264 J	0.00234 J
Potassium		32.9	31.1	28.6	27.3	4.4 J	<2.98 UJ	1.72	1.88	1.75	37.8	41.9	49.4	42.4	45.4 J	40.2	46.4 J	44.8	52.1	32.5	37.9
Selenium	0.128	0.145	0.161	0.141	0.132	<0.02	0.0195	0.0192	0.0208	0.0172	0.121	0.0844	0.0994	0.151	0.136	0.152	0.151	0.0774	0.0509	0.0214	0.0432
Sodium		673	707	652	783	499	602	581	543	603	406	423	394	583	627	495	795	560	711	567	705
Thallium		0.0014 J	0.0136	0.00856	0.00974		<0.000693	< 0.000693	<0.000693	<0.000693	0.00178	<0.000693	<0.000693	<0.000693	<0.000693	<0.000693	<0.000693	<0.000693	<0.000693	0.00101	<0.000693
Zinc		0.233 J	0.0269	< 0.00355	<0.00355		<0.00355	0.0527	0.194	<0.0375 UJ	<0.00355	<0.00355	<0.00355	0.00561 J	<0.00355	0.00713 J	<0.00355	<0.00355	<0.00355	<0.00355	<0.00355
Dissolved Metals (mg/L)																					
Aluminum	<0.05		0.0284 J			<0.05		< 0.0225													
Antimony	0.052	0.0414	0.0428	0.0383	0.0394	<0.02	<0.00161	< 0.00161	<0.00161	<0.00161	0.00629	0.00868	0.00524		<0.00161		<0.00161		<0.00161		<0.00161
Arsenic	1.41	1.28	1.12	1.19	1.3	<0.005	<0.00831 UJ	0.00848	0.0103	<0.0123 UJ	1.22	1.25	1.12		1.1		0.381		0.296		0.0574
Barium		0.0384	0.0387	0.0335	0.0315		<0.0242 UJ	0.0243	0.0256	0.0243	0.0324	0.0404	0.0405		0.0229		0.0359		0.0234		0.0275
Cadmium	<0.005	<0.000854	<0.000854	< 0.000854	<0.000854	<0.005	<0.000854	< 0.000854	<0.000854	<0.000854	<0.000854	0.00135 J	<0.000854		<0.000854		<0.000854		<0.000854		<0.000854
Calcium	136		118			33.8		35.9													
Chromium	<0.01	<0.00148 UJ	0.00219 J	0.00152 J	0.00302 J	<0.001	<0.0023 UJ	< 0.0014	0.00275 J	0.0019 J	<0.0014	<0.0014	<0.0014		<0.0014		<0.0014		<0.0014		<0.0014
Cobalt		<0.00136	<0.00136	< 0.00136	<0.00136		<0.00136	< 0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136		<0.00136		<0.00136		<0.00136		<0.00136
Copper	<0.005	<0.00115	0.0195	< 0.002	<0.002	<0.005	<0.00115	0.00633 J	0.129	0.00981 J	<0.002	<0.002	<0.002		<0.002		<0.002		<0.002		<0.002
Iron	<0.01	<0.101	<0.101	< 0.101	<0.101	<0.01	<0.101	< 0.101	<0.101	<0.101	<0.101	<0.101	<0.101		<0.101		<0.101		0.17 J		<0.101
Lead	<0.005	<0.000733	<0.000733	< 0.000733	<0.000733	<0.005	<0.000733	0.00259 J	<0.000733	<0.000733	<0.000733	<0.000733	<0.000733		<0.000733		<0.000733		<0.000733		<0.000733
Magnesium	65.9		61.4			60		65.7													
Manganese	<0.005		<0.0116			<0.0025		< 0.0116													
Mercury		<0.00013	<0.00013	< 0.00013	<0.00013		<0.00013	0.00015 J	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013		<0.00013		<0.00013		<0.00013		<0.00013
Molybdenum		0.616	0.632	0.588	0.537		0.0439	0.0427	0.0454	0.0561	0.482	0.458	0.445		0.547		0.561		0.619		0.66
Nickel		<0.00217	<0.00217	< 0.00217	<0.00217		<0.00217	< 0.00217	0.0032 J	<0.00217	<0.00217	0.00292 J	0.00366 J		<0.00217		0.00246 J		<0.00217		<0.00217
Potassium	34.4		30			4.26		1.65													
Selenium	0.151	0.184	0.156	0.137	0.13	<0.01	0.0186	0.0202	0.0204	0.02	0.122	0.0879	0.0925		0.134		0.163		0.0498		0.0414
Silica																					
Sodium	730		680			472															
Thallium		0.014	0.011	0.00912	0.01		<0.000693	< 0.000693	<0.000693	0.000818 J	<0.000693	<0.000693	<0.000693		0.000954 J		0.00209		<0.000693		<0.000693
Zinc		<0.00355	0.0062 J	< 0.00355	<0.00355		<0.00355	0.0473	0.21	<0.0366 UJ	<0.00355	<0.00355	<0.00355		<0.00355		<0.0173 UJ		<0.00355		<0.00355
Water Quality Parameters (mg/L)																					
Chloride	289	361	302	299	314	289	339	330	376	356	219	260	269	319	305	308	294	315	313	291	340
Fluoride	12.3	14.1 J	2.94	2.8	3.3	2.58	13.5	2.22	2.78	3.62	3.62	3.84	3.22	3.56	3.68	3.24	4.01	3.66	3.44	3.36	3.18
Nitrate	44.7	8.12		8.66		4.75	4.64	4.93			2.89										
Nitrate + Nitrite		8.12	8.78 J	8.66	9.37		4.64	4.93	6.95	6.53	2.89	3.4	3.27	4.53	2.84	3.78	1.63	2.44 J	0.455 J	<1	0.335 J
Nitrite	<0.5	<1		< 0.4		<0.5	<1	< 0.4			<0.4										
Sulfate	1100	1300 J	1160	1150	632 J	704	728	750	830	863	847	820	852	1100	906	1070	998	1130	1110	1060	1220
Sulfide	<0.1	<0.04 UJ	0.024 J	< 0.0131	<0.0131	<0.1	0.025 J	< 0.0131	<0.0131	0.024 J	0.016 J	0.024 J	<0.0131	<0.0131	0.037 J	0.014 J	0.032 J	<0.0131	<0.0131	<0.0131	<0.0131
Total Alkalinity		346	368	373	396		323	339	339	353	301	316	328	360	369	359	356	364	356	350	359
Total Dissolved Solids	2690	2720	2890	2800	2640	1900	2120	2140	2110	2100	1970	2170	2240	2380	2610	2270	2530	2330	2400	2240	2440
Total Organic Carbon	3.07	61.5 J	45.9	3.87	2.37	2.58	47.5	3.31	2	1.97	<4.83 UJ	1.69	1.98	2.63	2.86	2.53	2.84	2.83	2.75	2.72	2.7
Total Suspended Solids	<1	2.4	3	< 3	<3	2 J	<2.4 UJ	11.6	9	11.2	<3	<3	<3	<3	<3	<3	<3	<3	<3	4	<3

Notes are included on Page 9.

Table I-1
Groundwater Sampling Results (Texas Custodial Trust)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location	MW-2			MW-9D		MW-9S		OBS-1			
Sampling Date	*9/9/2011*	*2/29/2012*	*8/23/2012*	*3/27/2012*	*8/24/2012*	*3/27/2012*	*8/23/2012*	*3/7/2011*	*9/6/2011*	*3/1/2012*	*8/22/2012*
Total Metals (mg/L)											
Aluminum	<0.0225	0.0314 J	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	0.0269 J	< 0.0225	<0.0225	<0.0225
Antimony	<0.00161	<0.00161	<0.00161	0.00216 J	<0.00161	0.00611	0.0034 J	0.0405	0.0375	0.0435	0.0358
Arsenic	1.63	1.11	0.796	0.682	0.688	1.07	0.809	1.49	1.71	1.78	1.66
Barium	0.0389	0.0751	0.0595	0.0285	0.0299	0.0309	0.026	0.0371	0.0224	0.0268	0.0257
Cadmium	<0.000854	0.00227	<0.000854	<0.000854	<0.000854	<0.000854	<0.000854	<0.000854	0.00105 J	0.00209	0.000944 J
Calcium	53.4	132	128	160	202	145	141	136	137	149	134
Chromium	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.00356 UJ	< 0.0014	<0.0014	<0.0014
Cobalt	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	0.00155 J	<0.00136	<0.00136	< 0.00136	<0.00136	<0.00136
Copper	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0023 UJ	< 0.002	<0.002	<0.002
Iron	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	0.962	< 0.101	<0.101	<0.101
Lead	0.000772 J	0.000954 J	<0.000733	<0.000733	<0.000733	<0.000733	<0.000733	<0.000650 UJ	< 0.000733	<0.000733	<0.000733
Magnesium	23	45.2	55.7	62.3	89.3	51.7	63.8	67.9	68.9	68.7	70.8
Manganese	<0.0116	0.0794	0.0859	0.078	0.0324 J	0.517	0.337	0.00364 J	< 0.0116	<0.0116	<0.0116
Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	0.000205 J	<0.00013	<0.00013	0.000153 J	<0.00013	<0.00013
Molybdenum	0.301	0.665	0.708	0.503	0.513	0.408	0.481	0.452	0.399	0.449	0.455
Nickel	<0.00217	0.00528	0.00459 J	0.00228 J	<0.00217	0.00364 J	0.00349 J	0.00272 J	0.00505	0.00462 J	0.00289 J
Potassium	35.5	58.7	68.6	40.2	52.7	42.8	41.8	63.6	54.5	54.8	50.7
Selenium	0.0826	0.0112	0.00546	0.154	0.146	0.00216 J	0.0719	0.146	0.188	0.222	0.182
Sodium	331	761	508	669	806	482	485	646	590	844	849
Thallium	<0.000693	<0.000693	<0.000693	<0.000693	<0.000693	<0.000693	<0.000693	0.0059	0.0148	0.0163	0.0158
Zinc	<0.00355	<0.00355	<0.00355	0.00441 J	<0.00355	0.00768 J	<0.00355	<0.00576 UJ	0.0372	0.0392	0.0271
Dissolved Metals (mg/L)											
Aluminum											
Antimony	<0.00161	<0.00161	<0.00161		<0.00161		0.00334 J	0.039	0.0363	0.0388	0.0349
Arsenic	1.65	1.12	0.803		0.666		0.787	2.1	1.65	1.77	1.65
Barium	0.0389	0.0719	0.0608		0.0303		0.0248	0.0237	0.0226	0.0245	0.023
Cadmium	<0.000854	0.0019 J	<0.000854		<0.000854		<0.000854	0.000977 J	0.00106 J	0.00122 J	0.000942 J
Calcium											
Chromium	<0.0014	<0.0014	<0.0014		<0.0014		<0.0014	<0.0014	< 0.0014	<0.0014	<0.0014
Cobalt	<0.00136	<0.00136	<0.00136		<0.00136		<0.00136	<0.00136	< 0.00136	<0.00136	<0.00136
Copper	<0.002	<0.002	<0.002		<0.002		<0.002	<0.00307 UJ	< 0.002	<0.002	<0.002
Iron	<0.101	<0.101	<0.101		<0.101		<0.101	<0.101	< 0.101	<0.101	<0.101
Lead	<0.000733	<0.000733	<0.000733		<0.000733		<0.000733	<0.000733	< 0.000733	<0.000733	<0.000733
Magnesium											
Manganese											
Mercury	<0.00013	<0.00013	<0.00013		<0.00013		<0.00013	0.000159 J	0.000144 J	<0.00013	<0.00013
Molybdenum	0.301	0.652	0.732		0.512		0.468	0.413	0.389	0.42	0.437
Nickel	<0.00217	0.00507	0.00437 J		0.00242 J		0.00348 J	0.00343 J	0.0049 J	0.00388 J	0.00279 J
Potassium											
Selenium	0.0818	0.0112	0.00506		0.15		0.0719	0.189	0.186	0.205	0.197
Silica											
Sodium											
Thallium	<0.000693	<0.000693	<0.000693		<0.000693		<0.000693	0.0115	0.0144	0.0167	0.0151
Zinc	<0.00355	0.00368 J	<0.00355		<0.00355		<0.00355	<0.0515 UJ	0.0356	0.0357	0.0258
Water Quality Parameters (mg/L)											
Chloride	177	285	236	335	257	342	287	446	344	373	352
Fluoride	3.28	3.38	3.42	3.3	3.02	3.08	2.95	16.8	2.56	2.9	0.481
Nitrate	0.516 J							6.74	7.43		
Nitrate + Nitrite	0.516 J	1.78 J	<0.8	4.28	3.43	<1	2.12	6.74	7.43	10.2	8.76
Nitrite	<0.4							<1	< 0.4		
Sulfate	547	1100	1150	1120	801	1100	988	1410 J	1170	1310	1200
Sulfide	<0.0131	0.022 J	<0.0131	<0.0131	<0.0131	<0.0131	<0.0131	<0.027 UJ	< 0.0131	0.026 J	<0.0131
Total Alkalinity	266	364	379	355	354	329	318	375	416	416	397
Total Dissolved Solids	1410	2560	2630	2460	2990	2120	2270	2740	2880	3050	2770
Total Organic Carbon	<4.07 UJ	2.58	2.76	3.33	2.58	2.43	2.02	67.1	4.42	2.69	<3.84 UJ
Total Suspended Solids	4.8	3.8	<3	<3	3.6	<3	<3	3.4	5.4	<3	4.4

Notes:
mg/L = milligrams per liter

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 I-2
Groundwater Sampling Results (ASARCO): Prior to 1991

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Location / Sampling Date	EP-1 2/17/1990	EP-1 4/9/1990	EP-1 4/23/1990	EP-11 2/23/1990	EP-12 2/28/1990	EP-12 8/5/1990	EP-12 10/27/1990	EP-13 3/2/1990	EP-13 8/5/1990	EP-13 10/29/1990	EP-14 3/1/1990	EP-14 8/7/1990	EP-14 10/30/1990	EP-15 3/7/1990	EP-15 8/5/1990
Total Metals (mg/L)															
Arsenic									44						<0.005
Barium									<0.1						<0.1
Cadmium									88						<0.005
Chromium									<0.005						<0.005
Copper									0.04						0.02
Iron									0.04						0.05
Lead									<0.005						<0.005
Manganese									0.06						<0.01
Mercury									<0.0005						<0.0005
Selenium									5.1						0.2
Silver									<0.01						0.01
Zinc									0.03						0.04
Dissolved Metals (mg/L)															
Calcium									518						
Magnesium									133						
Potassium									88						
Sodium									5230						
Total Petroleum Hydrocarbons (mg/L)															
Carbon 10				3											
Carbon 11				5.1											
Carbon 12				8											
Carbon 13				10.9											
Carbon 14				13.5											
Carbon 15				11.7											
Carbon 16				11.3											
Carbon 17				10.3											
Carbon 18				8.1											
Carbon 19				6.7											
Carbon 20				4.2											
Carbon 21				2.6											
Carbon 22				1.8											
Carbon 23				0.6											
Carbon 24				0.1											
Carbon 25															
Carbon 7				0.3											
Carbon 8				0.7											
Carbon 9				1											
Total Petroleum Hydrocarbons	24.2	1200	4200		<0.5	<1	<1	<0.5	<1	<1	1.3	<1	<1	1.7	<1
Volatile Organic Compounds (mg/L)															
Benzene	0.02				<0.001	<0.002	0.007	<0.001	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001
Ethylbenzene	0.0005				<0.001	<0.001	<0.004	<0.001	<0.001	<0.004	<0.001	<0.001	<0.004	<0.001	<0.001
Toluene	0.0009				<0.001	<0.001	0.003	<0.001	<0.001	<0.002	<0.001	<0.001	<0.002	<0.001	<0.001
Total Xylenes	0.03				<0.001	<0.001	0.01	<0.001	<0.001	<0.003	<0.001	<0.001	<0.003	<0.001	<0.001
Water Quality Parameters (mg/L)															
Bicarbonate Alkalinity									418						
Chloride									1781						
Fluoride									1.2						
Nitrate + Nitrite									132						
Specific Conductivity (umhos/cm)									17800						
Sulfate									7975						
Total Alkalinity									343						
Total Dissolved Solids									14742						

Table I-2
Groundwater Sampling Results (ASARCO): Prior to 1991

Supplemental Remedial Investgation Report
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Location / Sampling Date	EP-15 10/29/1990	EP-16 3/7/1990	EP-16 8/7/1990	EP-16 10/30/1990	EP-17 3/2/1990	EP-17 8/6/1990	EP-17 10/30/1990	EP-19 4/9/1990	EP-20 3/1/1990	EP-20 8/6/1990	EP-20 10/30/1990	EP-22 8/6/1990	EP-22 10/13/1990	EP-22 10/30/1990	EP-23 8/7/1990
Total Metals (mg/L)															
Arsenic										0.8					
Barium										<0.1					
Cadmium										0.04					
Chromium										<0.005					
Copper										0.03					
Iron										<0.03					
Lead										<0.005					
Manganese										2.5					
Mercury										<0.0005					
Selenium										0.5					
Silver										0.01					
Zinc										0.01					
Dissolved Metals (mg/L)															
Calcium															
Magnesium															
Potassium															
Sodium															
Total Petroleum Hydrocarbons (mg/L)															
Carbon 10															
Carbon 11															
Carbon 12															
Carbon 13															
Carbon 14															
Carbon 15															
Carbon 16															
Carbon 17															
Carbon 18															
Carbon 19															
Carbon 20															
Carbon 21															
Carbon 22															
Carbon 23															
Carbon 24															
Carbon 25															
Carbon 7															
Carbon 8															
Carbon 9															
Total Petroleum Hydrocarbons	<1	1.1	<1	<1	0.5	<1	<1	1900	1.1	<1	<1	937	1.8	15	7720
Volatile Organic Compounds (mg/L)															
Benzene	<0.002	<0.001	<0.002	<0.002	<0.001	0.003	0.002		<0.001	<0.001	<0.002	<0.0001	0.02	0.01	<0.0001
Ethylbenzene	<0.004	<0.001	<0.001	<0.004	<0.001	<0.001	<0.004		<0.001	<0.001	<0.004	<0.0001	<0.01	0.004	0.0004
Toluene	<0.002	<0.001	<0.001	<0.002	<0.001	<0.001	<0.002		<0.001	<0.001	0.009	0.0001	<0.01	<0.002	0.0006
Total Xylenes	<0.003	<0.001	<0.001	<0.003	<0.001	<0.001	<0.003		<0.001	<0.001	<0.003	0.0005	0.02	0.04	0.003
Water Quality Parameters (mg/L)															
Bicarbonate Alkalinity															
Chloride															
Fluoride															
Nitrate + Nitrite															
Specific Conductivity (umhos/cm)															
Sulfate															
Total Alkalinity															
Total Dissolved Solids															

Table I-2
Groundwater Sampling Results (ASARCO): Prior to 1991

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Location Sampling Date	EP-23 8/11/1990	EP-23 10/31/1990	EP-24 8/8/1990	EP-24 8/13/1990	EP-24 10/31/1990	EP-25 8/8/1990	EP-25 8/13/1990	EP-26 8/9/1990	EP-26 8/13/1990	EP-26 10/31/1990	EP-27 8/9/1990	EP-27 10/31/1990	EP-28 8/9/1990	EP-3 2/20/1990	EP-3 8/6/1990
Total Metals (mg/L)															
Arsenic															0.2
Barium															<0.1
Cadmium															<0.005
Chromium															<0.005
Copper															0.03
Iron															0.3
Lead															<0.005
Manganese															0.3
Mercury															<0.0005
Selenium															0.4
Silver															<0.01
Zinc															0.03
Dissolved Metals (mg/L)															
Calcium															
Magnesium															
Potassium															
Sodium															
Total Petroleum Hydrocarbons (mg/L)															
Carbon 10							1.5								
Carbon 11							3.3								
Carbon 12							5.3								
Carbon 13							8.8								
Carbon 14							9.8								
Carbon 15							12.3								
Carbon 16							11.5								
Carbon 17							13.2								
Carbon 18							11.4								
Carbon 19							7.2								
Carbon 20							6								
Carbon 21							4.4								
Carbon 22							3								
Carbon 23							1								
Carbon 24							0.4								
Carbon 25							0.1								
Carbon 7															
Carbon 8							0.2								
Carbon 9							0.6								
Total Petroleum Hydrocarbons	<1	<1	71	1	50	4710		62	<1	<1	67	<1	990	1.2	<1
Volatile Organic Compounds (mg/L)															
Benzene	0.03	0.0001	<0.0001	0.008	0.003	<0.0001		<0.0001	<0.001	<0.002	<0.0001	<0.002	<0.0005	0.02	<0.001
Ethylbenzene	<0.002	0.05	<0.0001	<0.002	<0.004	0.0007		<0.0001	<0.001	<0.004	<0.0001	<0.004	0.001	<0.0005	<0.001
Toluene	0.004	<0.002	<0.0001	<0.001	<0.002	0.0002		0.0001	<0.001	<0.002	<0.0001	<0.002	0.0007	<0.0005	<0.001
Total Xylenes	0.03	0.004	<0.0001	0.005	0.006	0.003		0.0001	<0.001	<0.003	<0.0001	<0.003	0.003	0.01	<0.001
Water Quality Parameters (mg/L)															
Bicarbonate Alkalinity															
Chloride															
Fluoride															
Nitrate + Nitrite															
Specific Conductivity (umhos/cm)															
Sulfate															
Total Alkalinity															
Total Dissolved Solids															

Table I-2
Groundwater Sampling Results (ASARCO): Prior to 1991

Supplemental Remedial Investgation Report
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Location / Sampling Date	EP-3 10/29/1990	EP-4 2/20/1990	EP-4 3/8/1990	EP-4 8/4/1990	EP-4 10/30/1990	EP-5 2/20/1990	EP-5 3/8/1990	EP-5 8/4/1990	EP-5 10/30/1990	EP-6 2/20/1990	EP-6 3/8/1990	EP-6 8/4/1990	EP-6 10/30/1990	EP-7 2/20/1990	EP-7 8/4/1990
Total Metals (mg/L)															
Arsenic															
Barium															
Cadmium															
Chromium															
Copper															
Iron															
Lead															
Manganese															
Mercury															
Selenium															
Silver															
Zinc															
Dissolved Metals (mg/L)															
Calcium															
Magnesium															
Potassium															
Sodium															
Total Petroleum Hydrocarbons (mg/L)															
Carbon 10															
Carbon 11															
Carbon 12															
Carbon 13															
Carbon 14															
Carbon 15															
Carbon 16															
Carbon 17															
Carbon 18															
Carbon 19															
Carbon 20															
Carbon 21															
Carbon 22															
Carbon 23															
Carbon 24															
Carbon 25															
Carbon 7															
Carbon 8															
Carbon 9															
Total Petroleum Hydrocarbons	<1	1.5	<0.5	<1	<1	1.1	<0.5	<1	<1	0.3	<0.5	<1	<1	<0.1	<1
Volatile Organic Compounds (mg/L)															
Benzene	0.009	<0.0005	<0.001	<0.001	0.004	<0.0005	<0.001	<0.001	<0.002	<0.0005	<0.001	<0.001	0.003	<0.0005	<0.001
Ethylbenzene	<0.004	<0.0005	<0.001	<0.001	<0.004	<0.0005	<0.001	<0.001	<0.004	<0.0005	<0.001	<0.001	<0.004	<0.0005	<0.001
Toluene	<0.002	<0.0005	<0.001	<0.001	<0.002	<0.0005	<0.001	<0.001	<0.002	<0.0005	<0.001	<0.001	<0.002	<0.0005	<0.001
Total Xylenes	<0.003	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001
Water Quality Parameters (mg/L)															
Bicarbonate Alkalinity															
Chloride															
Fluoride															
Nitrate + Nitrite															
Specific Conductivity (umhos/cm)															
Sulfate															
Total Alkalinity															
Total Dissolved Solids															

Table I-2
Groundwater Sampling Results (ASARCO): Prior to 1991

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Location Sampling Date	EP-7 10/30/1990	EP-8 2/22/1990	EP-8 8/6/1990	EP-9 2/28/1990	EP-9 8/7/1990	EP-9 10/29/1990
Total Metals (mg/L)						
Arsenic			1.2			
Barium			<0.1			
Cadmium			<0.005			
Chromium			<0.005			
Copper			0.02			
Iron			0.05			
Lead			<0.005			
Manganese			0.2			
Mercury			<0.0005			
Selenium			0.2			
Silver			<0.01			
Zinc			0.02			
Dissolved Metals (mg/L)						
Calcium						
Magnesium						
Potassium						
Sodium						
Total Petroleum Hydrocarbons (mg/L)						
Carbon 10						
Carbon 11						
Carbon 12						
Carbon 13						
Carbon 14						
Carbon 15						
Carbon 16						
Carbon 17						
Carbon 18						
Carbon 19						
Carbon 20						
Carbon 21						
Carbon 22						
Carbon 23						
Carbon 24						
Carbon 25						
Carbon 7						
Carbon 8						
Carbon 9						
Total Petroleum Hydrocarbons	<1	22		1.4	<1	<1
Volatile Organic Compounds (mg/L)						
Benzene	<0.002	0.008		<0.001	<0.001	<0.002
Ethylbenzene	<0.004	<0.001		<0.001	<0.001	<0.004
Toluene	<0.002	<0.001		<0.001	<0.001	<0.002
Total Xylenes	<0.003	<0.001		<0.001	<0.001	<0.003
Water Quality Parameters (mg/L)						
Bicarbonate Alkalinity						
Chloride						
Fluoride						
Nitrate + Nitrite						
Specific Conductivity (umhos/cm)						
Sulfate						
Total Alkalinity						
Total Dissolved Solids						

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
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Location / Sampling Date	EP-1 2/17/1990	EP-1 4/9/1990	EP-1 4/23/1990	EP-1 2/18/1991	EP-1 3/4/1991	EP-1 8/4/1991	EP-1 10/22/1991	EP-11 2/23/1990	EP-12 2/28/1990	EP-12 8/5/1990	EP-12 10/27/1990	EP-12 1/9/1991	EP-13 3/2/1990	EP-13 8/5/1990
Total Metals (mg/L)														
Arsenic														44
Barium														<0.1
Cadmium														88
Chromium														<0.005
Copper														0.04
Iron														0.04
Lead														<0.005
Manganese														0.06
Mercury														<0.0005
Selenium														5.1
Silver														<0.01
Zinc														0.03
Dissolved Metals (mg/L)														
Calcium														518
Magnesium														133
Potassium														88
Sodium														5230
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														418
Chloride														1781
Fluoride														1.2
Nitrate + Nitrite														132
Specific Conductivity (umhos/cm)														17800
Sulfate														7975
Total Alkalinity														343
Total Dissolved Solids														14742
Volatile Organic Compounds (mg/L)														
Benzene	0.02			0.002	0.0001	<0.002	<0.002		<0.001	<0.002	0.007	0.005	<0.001	<0.002
Ethylbenzene	0.0005			<0.01	<0.02	<0.002	<0.002		<0.001	<0.001	<0.004	<0.001	<0.001	<0.001
Toluene	0.0009			<0.01	0.02	<0.002	<0.002		<0.001	<0.001	0.003	<0.001	<0.001	<0.001
Total Xylenes	0.03			<0.01	0.04	<0.002	<0.002		<0.001	<0.001	0.01	0.003	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)														
Carbon 10								3						
Carbon 11								5.1						
Carbon 12								8						
Carbon 13								10.9						
Carbon 14								13.5						
Carbon 15								11.7						
Carbon 16								11.3						
Carbon 17								10.3						
Carbon 18								8.1						
Carbon 19								6.7						
Carbon 20								4.2						
Carbon 21								2.6						
Carbon 22								1.8						
Carbon 23								0.6						
Carbon 24								0.1						
Carbon 25														
Carbon 7								0.3						
Carbon 8								0.7						
Carbon 9								1						
Total Petroleum Hydrocarbons	24.2	1200	4200	76	570	2	3		<0.5	<1	<1	1	<0.5	<1

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Location / Sampling Date	EP-13 10/29/1990	EP-13 1/10/1991	EP-13 4/15/1991	EP-13 8/5/1991	EP-13 10/20/1991	EP-14 3/1/1990	EP-14 8/7/1990	EP-14 10/30/1990	EP-14 10/20/1991	EP-15 3/7/1990	EP-15 8/5/1990	EP-15 10/29/1990	EP-15 1/10/1991	EP-15 4/15/1991
Total Metals (mg/L)														
Arsenic											<0.005			
Barium											<0.1			
Cadmium											<0.005			
Chromium											<0.005			
Copper											0.02			
Iron											0.05			
Lead											<0.005			
Manganese											<0.01			
Mercury											<0.0005			
Selenium											0.2			
Silver											0.01			
Zinc											0.04			
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.001	<0.002	<0.002	<0.002	<0.001	<0.002	<0.002	0.002	<0.001	<0.001	<0.002	<0.001	<0.002
Ethylbenzene	<0.004	<0.001	<0.002	<0.002	<0.002	<0.001	<0.001	<0.004	<0.002	<0.001	<0.001	<0.004	<0.001	<0.002
Toluene	<0.002	0.003	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002
Total Xylenes	<0.003	0.003	<0.002	<0.002	<0.002	<0.001	<0.001	<0.003	<0.002	<0.001	<0.001	<0.003	<0.001	<0.002
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<1	1	<2	<2	<2	1.3	<1	<1	<2	1.7	<1	<1	<1	<2

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
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Location / Sampling Date	EP-15 8/6/1991	EP-15 10/20/1991	EP-16 3/7/1990	EP-16 8/7/1990	EP-16 10/30/1990	EP-16 1/10/1991	EP-16 4/15/1991	EP-16 8/6/1991	EP-16 10/21/1991	EP-17 3/2/1990	EP-17 8/6/1990	EP-17 10/30/1990	EP-17 1/10/1991	EP-17 2/18/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids	1970													
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.002	<0.002	<0.002	<0.001	0.003	0.002	0.002	0.002
Ethylbenzene	<0.002	<0.002	<0.001	<0.001	<0.004	<0.001	<0.002	<0.002	<0.002	<0.001	<0.001	<0.004	<0.001	<0.002
Toluene	<0.002	<0.002	<0.001	<0.001	<0.002	0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	0.002	<0.002
Total Xylenes	<0.002	<0.002	<0.001	<0.001	<0.003	0.001	<0.002	<0.002	<0.002	<0.001	<0.001	<0.003	0.001	<0.002
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<2	<2	1.1	<1	<1	<1		<2	<2	0.5	<1	<1	<1	<2

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-17 3/4/1991	EP-17 4/15/1991	EP-17 8/6/1991	EP-17 10/21/1991	EP-18 2/18/1991	EP-18 3/4/1991	EP-19 4/9/1990	EP-19 8/4/1991	EP-20 3/1/1990	EP-20 8/6/1990	EP-20 10/30/1990	EP-20 1/10/1991	EP-20 4/15/1991	EP-20 10/22/1991
Total Metals (mg/L)														
Arsenic										0.8				
Barium										<0.1				
Cadmium										0.04				
Chromium										<0.005				
Copper										0.03				
Iron										<0.03				
Lead										<0.005				
Manganese										2.5				
Mercury										<0.0005				
Selenium										0.5				
Silver										0.01				
Zinc										0.01				
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002		0.006	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002
Ethylbenzene	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002		0.005	<0.001	<0.001	<0.004	<0.001	<0.002	<0.002
Toluene	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002		0.004	<0.001	<0.001	0.009	0.002	<0.002	<0.002
Total Xylenes	<0.002	<0.002	<0.002	<0.002	<0.01	0.02		0.009	<0.001	<0.001	<0.003	0.001	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<2	3.1	<2	<2	110	60	1900	77	1.1	<1	<1	<1	<2	<2

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-22 8/6/1990	EP-22 10/13/1990	EP-22 10/30/1990	EP-23 8/7/1990	EP-23 8/11/1990	EP-23 10/31/1990	EP-23 1/14/1991	EP-23 4/14/1991	EP-23 8/2/1991	EP-23 10/19/1991	EP-24 8/8/1990	EP-24 8/13/1990	EP-24 10/31/1990	EP-24 1/8/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	<0.0001	0.02	0.01	<0.0001	0.03	0.0001	0.0001	0.0001	0.0002	0.0001	<0.0001	0.008	0.003	0.01
Ethylbenzene	<0.0001	<0.01	0.004	0.0004	<0.002	0.05	<0.01	<0.01	0.007	0.01	<0.0001	<0.002	<0.004	0.005
Toluene	0.0001	<0.01	<0.002	0.0006	0.004	<0.002	0.03	<0.01	<0.002	<0.002	<0.0001	<0.001	<0.002	0.006
Total Xylenes	0.0005	0.02	0.04	0.003	0.03	0.004	0.04	0.01	0.03	0.01	<0.0001	0.005	0.006	0.01
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	937	1.8	15	7720	<1	<1	2.2	<2	2	<2	71	1	50	24

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-24 4/14/1991	EP-24 8/2/1991	EP-24 10/19/1991	EP-25 8/8/1990	EP-25 8/13/1990	EP-26 8/9/1990	EP-26 8/13/1990	EP-26 10/31/1990	EP-26 1/8/1991	EP-26 4/13/1991	EP-26 8/2/1991	EP-26 10/19/1991	EP-27 8/9/1990	EP-27 10/31/1990
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	0.01	0.005	0.006	<0.0001		<0.0001	<0.001	<0.002	<0.001	<0.003	<0.002	<0.002	<0.0001	<0.002
Ethylbenzene	<0.004	<0.002	<0.002	0.0007		<0.0001	<0.001	<0.004	<0.001	<0.002	<0.002	<0.002	<0.0001	<0.004
Toluene	<0.004	<0.002	0.004	0.0002		0.0001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002	<0.0001	<0.002
Total Xylenes	<0.004	0.007	0.02	0.003		0.0001	<0.001	<0.003	<0.001	<0.002	<0.002	<0.002	<0.0001	<0.003
Petroleum Hydrocarbons (mg/L)														
Carbon 10					1.5									
Carbon 11					3.3									
Carbon 12					5.3									
Carbon 13					8.8									
Carbon 14					9.8									
Carbon 15					12.3									
Carbon 16					11.5									
Carbon 17					13.2									
Carbon 18					11.4									
Carbon 19					7.2									
Carbon 20					6									
Carbon 21					4.4									
Carbon 22					3									
Carbon 23					1									
Carbon 24					0.4									
Carbon 25					0.1									
Carbon 7														
Carbon 8					0.2									
Carbon 9					0.6									
Total Petroleum Hydrocarbons	4.3	9	10	4710		62	<1	<1	2.5	<2	<2	<2	67	<1

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-27 1/8/1991	EP-27 3/5/1991	EP-27 4/14/1991	EP-27 8/2/1991	EP-28 8/9/1990	EP-28 10/22/1991	EP-29 4/17/1991	EP-29 8/4/1991	EP-29 10/22/1991	EP-3 2/20/1990	EP-3 8/6/1990	EP-3 10/29/1990	EP-3 1/10/1991	EP-3 2/18/1991
Total Metals (mg/L)														
Arsenic											0.2			
Barium											<0.1			
Cadmium											<0.005			
Chromium											<0.005			
Copper											0.03			
Iron											0.3			
Lead											<0.005			
Manganese											0.3			
Mercury											<0.0005			
Selenium											0.4			
Silver											<0.01			
Zinc											0.03			
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	0.002	<0.002	<0.002	<0.002	<0.0005	<0.002	<0.005	<0.002	<0.002	0.02	<0.001	0.009	<0.001	0.004
Ethylbenzene	<0.001	<0.002	<0.002	<0.002	0.001	<0.002	<0.005	<0.002	<0.002	<0.0005	<0.001	<0.004	<0.001	<0.002
Toluene	0.005	<0.002	<0.002	<0.002	0.0007	<0.002	<0.005	<0.002	<0.002	<0.0005	<0.001	<0.002	<0.001	<0.002
Total Xylenes	0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.005	<0.002	<0.002	0.01	<0.001	<0.003	<0.001	0.002
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	1	<2	<2	<2	990	3	<2	<2	<2	1.2	<1	<1	<1	3

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-3 3/4/1991	EP-3 4/15/1991	EP-3 8/6/1991	EP-3 10/21/1991	EP-31 3/5/1991	EP-31 8/4/1991	EP-32 3/5/1991	EP-32 4/17/1991	EP-32 8/5/1991	EP-32 10/22/1991	EP-33 3/5/1991	EP-33 4/17/1991	EP-33 8/4/1991	EP-33 10/22/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	0.009	0.008	<0.002	0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002
Ethylbenzene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002
Toluene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002
Total Xylenes	0.003	0.004	<0.002	0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	0.004	<0.005	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons		<2	<2	<2	2.9	2	<2	<2	<2	3	<2	12	2	<2

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-35 3/5/1991	EP-35 4/17/1991	EP-35 8/4/1991	EP-35 10/22/1991	EP-36 3/5/1991	EP-36 4/17/1991	EP-36 8/5/1991	EP-36 10/22/1991	EP-38 3/5/1991	EP-38 4/17/1991	EP-38 8/4/1991	EP-38 10/22/1991	EP-39 3/5/1991	EP-39 4/16/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	0.005	<0.005	<0.002	0.002	0.002	<0.005	0.003	0.003	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005
Ethylbenzene	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005
Toluene	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005
Total Xylenes	0.01	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<2	20	<2	<2	<2	<2	<2	<2	4	<2	<2	<2	<2	<2

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-39 8/5/1991	EP-39 10/22/1991	EP-4 2/20/1990	EP-4 3/8/1990	EP-4 8/4/1990	EP-4 10/30/1990	EP-4 1/10/1991	EP-4 2/18/1991	EP-4 3/4/1991	EP-4 4/15/1991	EP-4 8/5/1991	EP-4 10/21/1991	EP-40 3/5/1991	EP-40 4/16/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.002	<0.0005	<0.001	<0.001	0.004	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
Ethylbenzene	<0.002	<0.002	<0.0005	<0.001	<0.001	<0.004	0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
Toluene	<0.002	<0.002	<0.0005	<0.001	<0.001	<0.002	0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
Total Xylenes	<0.002	<0.002	<0.001	<0.001	<0.001	<0.003	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<2	<2	1.5	<0.5	<1	<1	<1	5	<2		<2	<2	<2	<2

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-40 8/5/1991	EP-40 10/22/1991	EP-41 3/5/1991	EP-41 4/16/1991	EP-41 10/22/1991	EP-42 2/3/1991	EP-42 4/16/1991	EP-42 8/4/1991	EP-42 10/22/1991	EP-44 4/17/1991	EP-44 8/5/1991	EP-45 3/16/1991	EP-45 8/5/1991	EP-47 4/17/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids								2945						
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	0.004	0.006	0.006	<0.005
Ethylbenzene	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005
Toluene	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005
Total Xylenes	<0.002	<0.002	0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.005
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<2	<2	<2	<2	<2	<2	<2	<2	<2	3	4	5	77	5

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-47 8/5/1991	EP-49 2/9/1991	EP-49 2/27/1991	EP-49 4/14/1991	EP-49 8/3/1991	EP-49 10/19/1991	EP-5 2/20/1990	EP-5 3/8/1990	EP-5 8/4/1990	EP-5 10/30/1990	EP-5 1/10/1991	EP-5 2/18/1991	EP-5 3/4/1991	EP-5 4/15/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.0003	0.0001	0.02	0.04	0.04	<0.0005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002
Ethylbenzene	<0.002	<0.0003	<0.02	<0.01	0.003	0.01	<0.0005	<0.001	<0.001	<0.004	<0.001	<0.002	<0.002	<0.002
Toluene	<0.002	<0.0003	<0.02	0.01	0.009	0.007	<0.0005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002
Total Xylenes	0.02	<0.0003	0.0001	0.0001	0.0001	0.0002	<0.001	<0.001	<0.001	<0.003	<0.001	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	50	<70	2	<2	<2	<2	1.1	<0.5	<1	<1	<1	<2	<2	<2

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
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Location / Sampling Date	EP-5 8/5/1991	EP-5 10/21/1991	EP-50 2/11/1991	EP-50 8/5/1991	EP-51 2/12/1991	EP-51 2/28/1991	EP-51 4/13/1991	EP-51 8/3/1991	EP-51 10/20/1991	EP-52 2/13/1991	EP-52 2/28/1991	EP-52 4/14/1991	EP-52 8/3/1991	EP-53 2/14/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids													3457	
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.002	<0.0003	0.008	<0.0003	<0.001	<0.002	0.003	<0.002	<0.0003	<0.001	<0.002	<0.002	<0.0003
Ethylbenzene	<0.002	<0.002	<0.0003	<0.002	<0.0003	<0.001	<0.002	<0.002	<0.002	<0.0003	<0.001	<0.002	<0.002	<0.0003
Toluene	<0.002	<0.002	<0.0003	<0.002	0.0003	<0.001	<0.002	<0.002	<0.002	<0.0003	<0.001	<0.002	<0.002	<0.0003
Total Xylenes	<0.002	<0.002	<0.0003	0.005	<0.0003	<0.001	<0.002	<0.002	<0.002	<0.0003	<0.001	<0.002	<0.002	<0.0003
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<2	<2	130	230	<70	<2	<2	<2	<2	<70	<2	<2	<2	<70

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-53 2/28/1991	EP-53 4/13/1991	EP-53 8/2/1991	EP-53 10/19/1991	EP-6 2/20/1990	EP-6 3/8/1990	EP-6 8/4/1990	EP-6 10/30/1990	EP-6 1/10/1991	EP-6 2/18/1991	EP-6 3/4/1991	EP-6 4/15/1991	EP-6 8/6/1991	EP-6 10/21/1991
Total Metals (mg/L)														
Arsenic														
Barium														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Manganese														
Mercury														
Selenium														
Silver														
Zinc														
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids			6143											
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<0.002	<0.002	<0.002	<0.0005	<0.001	<0.001	0.003	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002
Ethylbenzene	<0.001	<0.002	<0.002	<0.002	<0.0005	<0.001	<0.001	<0.004	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002
Toluene	<0.001	<0.002	<0.002	<0.002	<0.0005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002
Total Xylenes	<0.001	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.003	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<2	<2	<2	<2	0.3	<0.5	<1	<1	<1	<2	<2	2.3	<2	<2

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-7 2/20/1990	EP-7 8/4/1990	EP-7 10/30/1990	EP-7 1/10/1991	EP-7 2/18/1991	EP-7 3/4/1991	EP-7 4/15/1991	EP-7 8/6/1991	EP-7 10/21/1991	EP-8 2/22/1990	EP-8 8/6/1990	EP-9 2/28/1990	EP-9 8/7/1990	EP-9 10/29/1990
Total Metals (mg/L)														
Arsenic											1.2			
Barium											<0.1			
Cadmium											<0.005			
Chromium											<0.005			
Copper											0.02			
Iron											0.05			
Lead											<0.005			
Manganese											0.2			
Mercury											<0.0005			
Selenium											0.2			
Silver											<0.01			
Zinc											0.02			
Dissolved Metals (mg/L)														
Calcium														
Magnesium														
Potassium														
Sodium														
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														
Chloride														
Fluoride														
Nitrate + Nitrite														
Specific Conductivity (umhos/cm)														
Sulfate														
Total Alkalinity														
Total Dissolved Solids														
Volatile Organic Compounds (mg/L)														
Benzene	<0.0005	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	0.008		<0.001	<0.001	<0.002
Ethylbenzene	<0.0005	<0.001	<0.004	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001		<0.001	<0.001	<0.004
Toluene	<0.0005	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001		<0.001	<0.001	<0.002
Total Xylenes	<0.001	<0.001	<0.003	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001		<0.001	<0.001	<0.003
Petroleum Hydrocarbons (mg/L)														
Carbon 10														
Carbon 11														
Carbon 12														
Carbon 13														
Carbon 14														
Carbon 15														
Carbon 16														
Carbon 17														
Carbon 18														
Carbon 19														
Carbon 20														
Carbon 21														
Carbon 22														
Carbon 23														
Carbon 24														
Carbon 25														
Carbon 7														
Carbon 8														
Carbon 9														
Total Petroleum Hydrocarbons	<0.1	<1	<1	<1	<2	<2	<2	<2	<2	22		1.4	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): February 1990 - October 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location Sampling Date	EP-9 1/10/1991	EP-9 4/16/1991	EP-9 8/5/1991	EP-9 10/20/1991
Total Metals (mg/L)				
Arsenic				
Barium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Manganese				
Mercury				
Selenium				
Silver				
Zinc				
Dissolved Metals (mg/L)				
Calcium				
Magnesium				
Potassium				
Sodium				
Water Quality Parameters (mg/L)				
Bicarbonate Alkalinity				
Chloride				
Fluoride				
Nitrate + Nitrite				
Specific Conductivity (umhos/cm)				
Sulfate				
Total Alkalinity				
Total Dissolved Solids			1819	
Volatile Organic Compounds (mg/L)				
Benzene	0.003	<0.005	<0.002	<0.002
Ethylbenzene	<0.001	<0.005	<0.002	<0.002
Toluene	0.005	<0.005	<0.002	<0.002
Total Xylenes	0.005	<0.005	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)				
Carbon 10				
Carbon 11				
Carbon 12				
Carbon 13				
Carbon 14				
Carbon 15				
Carbon 16				
Carbon 17				
Carbon 18				
Carbon 19				
Carbon 20				
Carbon 21				
Carbon 22				
Carbon 23				
Carbon 24				
Carbon 25				
Carbon 7				
Carbon 8				
Carbon 9				
Total Petroleum Hydrocarbons	<1	<2	<2	<2

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-1 2/1/1992	EP-1 1/29/1993	EP-13 2/1/1992	EP-13 5/30/1992	EP-13 8/26/1992	EP-13 10/30/1992	EP-13 1/28/1993	EP-13 4/9/1993	EP-13 7/16/1993	EP-13 10/28/1993	EP-14 1/28/1993
Volatile Organic Compounds (mg/L)											
Benzene	<0.002		<0.002	<0.002	<0.002			<0.001	<0.001	<0.001	<0.002
Ethylbenzene	<0.002		<0.002	<0.002	<0.002			<0.001	<0.001	<0.001	<0.002
m,p-Xylenes								<0.001			
m-Xylene									<0.001	<0.001	
o-Xylene								<0.001	<0.001	<0.001	
p-Xylene									<0.001	<0.001	
Toluene	<0.002		<0.002	<0.002	<0.002			<0.001	<0.001	<0.001	<0.002
Total Xylenes	<0.002		<0.002	<0.002	<0.002						<0.002
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<2	7	<2	<2	<1	<1	<1	<0.2	<0.2	<0.2	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

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Former ASARCO Smelter Site

Location / Sampling Date	EP-15 2/1/1992	EP-15 5/30/1992	EP-15 8/26/1992	EP-15 10/30/1992	EP-15 1/28/1993	EP-15 4/9/1993	EP-15 7/16/1993	EP-15 10/28/1993	EP-16 2/1/1992	EP-16 5/30/1992	EP-16 8/28/1992
Volatile Organic Compounds (mg/L)											
Benzene	<0.002	<0.002	<0.002			<0.001	<0.001	<0.001	<0.002	<0.002	<0.002
Ethylbenzene	<0.002	<0.002	<0.002			<0.001	<0.001	<0.001	<0.002	<0.002	<0.002
m,p-Xylenes						<0.001					
m-Xylene							<0.001	<0.001			
o-Xylene						<0.001	<0.001	<0.001			
p-Xylene							<0.001	<0.001			
Toluene	<0.002	<0.002	<0.002			<0.001	<0.001	<0.001	<0.002	<0.002	<0.002
Total Xylenes	<0.002	<0.002	<0.002						<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<2	<2	<1	<1	<1	<0.2	<0.2	<0.2	<2	<2	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

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Former ASARCO Smelter Site

Location / Sampling Date	EP-16 11/1/1992	EP-16 1/31/1993	EP-16 4/11/1993	EP-16 7/16/1993	EP-16 10/29/1993	EP-17 2/1/1992	EP-17 1/31/1993	EP-20 2/1/1992	EP-20 5/30/1992	EP-20 8/28/1992	EP-20 11/1/1992
Volatile Organic Compounds (mg/L)											
Benzene			<0.001	<0.001	<0.001	<0.002		<0.002	<0.002	<0.002	
Ethylbenzene			<0.001	<0.001	<0.001	<0.002		<0.002	<0.002	<0.002	
m,p-Xylenes			<0.001								
m-Xylene				<0.001	<0.001						
o-Xylene			<0.001	<0.001	<0.001						
p-Xylene				<0.001	<0.001						
Toluene			<0.001	<0.001	<0.001	<0.002		<0.002	<0.002	<0.002	
Total Xylenes						<0.002		<0.002	<0.002	<0.002	
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<1	<1	<0.2	<0.2	<0.2	<2	1		<2	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

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Former ASARCO Smelter Site

Location / Sampling Date	EP-20 1/29/1993	EP-20 4/11/1993	EP-20 7/16/1993	EP-20 10/29/1993	EP-23 1/30/1992	EP-23 5/29/1992	EP-23 8/27/1992	EP-23 10/30/1992	EP-23 1/29/1993	EP-23 4/11/1993	EP-23 7/14/1993
Volatile Organic Compounds (mg/L)											
Benzene	<0.002	<0.001	<0.001	<0.001	0.0001	0.0001	0.0002	0.0002	0.01	0.2	0.1
Ethylbenzene	<0.002	<0.001	<0.001	<0.001	0.006	<0.002	<0.01	0.03	0.02	0.02	0.02
m,p-Xylenes		<0.001								0.03	
m-Xylene			<0.001	<0.001							<0.001
o-Xylene		<0.001	<0.001	<0.001						<0.001	<0.001
p-Xylene			<0.001	<0.001							<0.001
Toluene	<0.002	<0.001	<0.001	<0.001	<0.002	0.02	<0.01	<0.01	<0.01	<0.001	<0.001
Total Xylenes	<0.002				0.03	0.02	0.01	0.02	0.02		
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<1	<0.2	<0.2	<0.2	<2	<2	2	2	2	<0.2	2.4

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

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Former ASARCO Smelter Site

Location / Sampling Date	EP-23 10/28/1993	EP-24 1/30/1992	EP-24 5/29/1992	EP-24 8/27/1992	EP-24 10/30/1992	EP-24 1/28/1993	EP-24 4/11/1993	EP-24 7/14/1993	EP-26 1/30/1992	EP-26 5/29/1992	EP-26 8/27/1992
Volatile Organic Compounds (mg/L)											
Benzene	0.1	<0.002	<0.002	0.008	<0.002	0.006	<0.001	0.001	<0.002	<0.002	<0.002
Ethylbenzene	0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002
m,p-Xylenes							<0.001				
m-Xylene	<0.001							<0.001			
o-Xylene	<0.001						<0.001	<0.001			
p-Xylene	<0.001							<0.001			
Toluene	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002
Total Xylenes		<0.002	<0.002	0.005	<0.002	0.002			<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	0.2	3	5	0.01	3	1	<0.2	7.6	<2	<2	2

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

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Former ASARCO Smelter Site

Location / Sampling Date	EP-26 10/30/1992	EP-26 1/29/1993	EP-26 4/11/1993	EP-26 7/14/1993	EP-26 10/29/1993	EP-29 2/2/1992	EP-29 2/1/1993	EP-3 2/1/1992	EP-3 1/29/1993	EP-31 2/1/1993	EP-32 2/1/1992
Volatile Organic Compounds (mg/L)											
Benzene	0.002	<0.002	<0.001	<0.001	<0.001	<0.002		<0.002	<0.002		<0.002
Ethylbenzene	0.002	<0.002	<0.001	<0.001	<0.001	<0.002		<0.002	<0.002		<0.002
m,p-Xylenes			<0.001								
m-Xylene				<0.001	<0.001						
o-Xylene			<0.001	<0.001	<0.001						
p-Xylene				<0.001	<0.001						
Toluene	0.002	<0.002	<0.001	<0.001	<0.001	<0.002		<0.002	<0.002		<0.002
Total Xylenes	0.002	<0.002				<0.002		<0.002	<0.002		<0.002
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<1	<1	<0.2	<0.2	<0.2	<2	<1	<2	<1	2	<2

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

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Location / Sampling Date	EP-32 2/1/1993	EP-33 2/1/1992	EP-33 2/1/1993	EP-35 2/2/1992	EP-35 2/1/1993	EP-36 2/1/1992	EP-36 2/1/1993	EP-37 2/2/1992	EP-37 2/1/1993	EP-38 2/2/1992	EP-38 1/31/1993
Volatile Organic Compounds (mg/L)											
Benzene		<0.002		<0.002		<0.002		<0.002		<0.002	
Ethylbenzene		<0.002		<0.002		<0.002		<0.002		<0.002	
m,p-Xylenes											
m-Xylene											
o-Xylene											
p-Xylene											
Toluene		<0.002		<0.002		<0.002		<0.002		<0.002	
Total Xylenes		<0.002		<0.002		<0.002		<0.002		0.008	
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<1	<2	21	<2	1	<2	<1	<2	<1	<2	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

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Former ASARCO Smelter Site

Location / Sampling Date	EP-39 2/2/1992	EP-39 1/31/1993	EP-4 1/31/1992	EP-4 1/29/1993	EP-40 2/1/1992	EP-40 1/31/1993	EP-41 2/1/1992	EP-41 1/31/1993	EP-42 2/1/1992	EP-42 5/30/1992	EP-42 8/28/1992
Volatile Organic Compounds (mg/L)											
Benzene	<0.002		<0.002	<0.002	<0.002		<0.002		<0.002	<0.002	<0.002
Ethylbenzene	<0.002		<0.002	<0.002	<0.002		<0.002		<0.002	<0.002	<0.002
m,p-Xylenes											
m-Xylene											
o-Xylene											
p-Xylene											
Toluene	<0.002		<0.002	<0.002	<0.002		<0.002		<0.002	<0.002	<0.002
Total Xylenes	<0.002		<0.002	<0.002	<0.002		<0.002		<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<2	<1	3	<1	<2	<1	4	37	<2	<2	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

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Former ASARCO Smelter Site

Location / Sampling Date	EP-42 11/1/1992	EP-42 1/29/1993	EP-42 4/12/1993	EP-42 7/16/1993	EP-42 10/29/1993	EP-48 2/1/1993	EP-49 1/30/1992	EP-49 5/29/1992	EP-49 8/27/1992	EP-49 10/29/1992	EP-49 1/28/1993
Volatile Organic Compounds (mg/L)											
Benzene			<0.001	<0.001	<0.001		<0.002	0.01	0.05	0.0001	0.03
Ethylbenzene			<0.001	<0.001	<0.001		<0.002	<0.002	0.009	0.02	<0.01
m,p-Xylenes			<0.001								
m-Xylene				<0.001	<0.001						
o-Xylene			<0.001	<0.001	<0.001						
p-Xylene				<0.001	<0.001						
Toluene			<0.001	<0.001	<0.001		<0.002	0.01	0.005	0.01	<0.01
Total Xylenes							<0.002	0.005	0.0001	0.0001	0.1
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<1	<1	<0.2	<0.2	<0.2	6	<2	<2	<1	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-49 4/9/1993	EP-5 1/31/1992	EP-5 5/30/1992	EP-5 8/27/1992	EP-5 11/1/1992	EP-5 1/29/1993	EP-5 4/12/1993	EP-5 7/16/1993	EP-5 10/29/1993	EP-51 1/30/1992	EP-51 5/29/1992
Volatile Organic Compounds (mg/L)											
Benzene	0.06	<0.002	<0.002	<0.002		<0.002	<0.001	<0.001	<0.001	<0.002	<0.002
Ethylbenzene	0.03	<0.002	<0.002	<0.002		<0.002	<0.001	<0.001	<0.001	<0.002	<0.002
m,p-Xylenes	0.04						<0.001				
m-Xylene								<0.001	<0.001		
o-Xylene	0.003						<0.001	<0.001	<0.001		
p-Xylene								<0.001	<0.001		
Toluene	0.01	<0.002	<0.002	<0.002		<0.002	<0.001	<0.001	<0.001	<0.002	<0.002
Total Xylenes		<0.002	<0.002	<0.002		<0.002				<0.002	<0.002
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<0.2	<2	<2	<1	<1	<1	<0.2	<0.2	<0.2	<2	<2

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-51 8/27/1992	EP-51 10/29/1992	EP-51 1/28/1993	EP-51 4/9/1993	EP-51 7/14/1993	EP-51 10/28/1993	EP-53 1/30/1992	EP-53 5/29/1992	EP-53 8/27/1992	EP-53 10/29/1992	EP-53 1/28/1993
Volatile Organic Compounds (mg/L)											
Benzene	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002
m,p-Xylenes				<0.001							
m-Xylene					<0.001	<0.001					
o-Xylene				<0.001	<0.001	<0.001					
p-Xylene					<0.001	<0.001					
Toluene	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes	<0.002	<0.002	<0.002				<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<1	<1	<1	<0.2	<0.2	<0.2	<2	<2	<1	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location Sampling Date	EP-53 4/9/1993	EP-53 7/14/1993	EP-53 10/28/1993	EP-6 1/31/1992	EP-6 1/29/1993	EP-7 1/31/1992	EP-7 5/30/1992	EP-7 8/27/1992	EP-7 11/1/1992	EP-7 1/29/1993	EP-7 4/12/1993
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.001
m,p-Xylenes	<0.001										<0.001
m-Xylene		<0.001	<0.001								
o-Xylene	<0.001	<0.001	<0.001								<0.001
p-Xylene		<0.001	<0.001								
Toluene	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.001
Total Xylenes				<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<0.2	<0.2	<0.2	<2	<1	<2	<2	<1	<1	<1	<0.2

Table I-2
Groundwater Sampling Results (ASARCO): 1992 - 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-7 7/16/1993	EP-7 10/29/1993	EP-9 2/1/1992	EP-9 5/30/1992	EP-9 8/27/1992	EP-9 10/30/1992	EP-9 1/28/1993	EP-9 4/12/1993	EP-9 7/16/1993	EP-9 10/28/1993
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.002	<0.002	<0.002			<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.002	<0.002	<0.002			<0.001	<0.001	<0.001
m,p-Xylenes								<0.001		
m-Xylene	<0.001	<0.001							<0.001	<0.001
o-Xylene	<0.001	<0.001						<0.001	<0.001	<0.001
p-Xylene	<0.001	<0.001							<0.001	<0.001
Toluene	<0.001	<0.001	<0.002	<0.002	<0.002			<0.001	<0.001	<0.001
Total Xylenes			<0.002	<0.002	<0.002					
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<0.2	<0.2	<2	<2	<1	<1	<1	<0.2	<0.2	<0.2

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-1 1/17/1994	EP-1 2/7/1995	EP-1 5/16/1995	EP-13 1/16/1994	EP-13 5/25/1994	EP-13 8/9/1994	EP-13 11/8/1994	EP-13 2/8/1995	EP-13 5/17/1995	EP-13 8/16/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene	<0.001	<0.001		<0.001	<0.001			<0.001		
o-Xylene	<0.001	<0.001		<0.001	<0.001			<0.001		
p-Xylene	<0.001	<0.001		<0.001	<0.001			<0.001		
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes			<0.0003			<0.0003	<0.001		0.0004	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<0.2	0.0002	4	<0.2	<0.2	<1	0.6	<0.0002	<1	1.9

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-13 11/14/1995	EP-14 1/16/1994	EP-14 2/8/1995	EP-15 1/16/1994	EP-15 5/25/1994	EP-15 8/9/1994	EP-15 11/8/1994	EP-15 2/8/1995	EP-15 5/17/1995	EP-15 8/16/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene		<0.001	<0.001	<0.001	<0.001			<0.001		
o-Xylene		<0.001	<0.001	<0.001	<0.001			<0.001		
p-Xylene		<0.001	<0.001	<0.001	<0.001			<0.001		
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.002					<0.0003	<0.001		0.0004	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<0.2	<0.0002	<0.2	<0.2	<1	1.1	0.0003	<1	2

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-15 11/15/1995	EP-16 1/16/1994	EP-16 5/24/1994	EP-16 8/9/1994	EP-17 1/16/1994	EP-17 2/7/1995	EP-19 1/17/1994	EP-20 1/17/1994	EP-20 5/24/1994	EP-20 8/9/1994
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene		<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	
o-Xylene		<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	
p-Xylene		<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001			<0.0003						<0.0003
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<0.2	<0.2	<1	<0.2	0.0006	<0.2	<0.2	<0.2	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-20 11/8/1994	EP-20 2/7/1995	EP-20 5/16/1995	EP-20 8/15/1995	EP-20 11/14/1995	EP-23 1/18/1994	EP-23 5/26/1994	EP-23 8/3/1994	EP-23 11/14/1994	EP-23 2/9/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	0.1	0.1	0.2	0.1	0.2
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	0.03	0.02	0.01	0.01	0.02
m-Xylene		<0.001				<0.001	<0.001		<0.0001	<0.001
o-Xylene		<0.001				0.001	0.002		<0.0001	<0.001
p-Xylene		<0.001				<0.001	0.001		<0.0001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.0001	<0.001
Total Xylenes	<0.001		<0.0003	<0.001	<0.001			0.003		
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	0.7	0.0003	<1	<1	<1	<0.2	<0.2	1.9	0.5	0.0004

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-23 5/18/1995	EP-23 8/18/1995	EP-23 11/15/1995	EP-26 1/18/1994	EP-26 5/26/1994	EP-26 8/3/1994	EP-26 11/14/1994	EP-26 2/9/1995	EP-26 5/17/1995	EP-26 8/16/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	0.1	0.1	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	0.02	0.02	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene				<0.001	<0.001		<0.001	<0.001		
o-Xylene				<0.001	<0.001		<0.001	<0.001		
p-Xylene				<0.001	<0.001		<0.001	<0.001		
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	0.003	0.005	0.003			<0.0003			<0.0003	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	2.2	<0.001	2.8	<0.2	<0.2	<1	0.7	0.0005	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-26 11/15/1995	EP-29 1/17/1994	EP-29 2/7/1995	EP-3 1/16/1994	EP-3 2/7/1995	EP-3 5/16/1995	EP-31 1/17/1994	EP-31 2/7/1995	EP-32 1/17/1994	EP-32 2/7/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene		<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
o-Xylene		<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
p-Xylene		<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001					<0.0003				
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	1.1	<0.2	<0.0002	<0.2	<0.0002	11	<0.2	<0.0002	<0.2	<0.0002

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-35 1/17/1994	EP-35 2/7/1995	EP-36 1/17/1994	EP-36 2/7/1995	EP-37 1/17/1994	EP-37 2/7/1995	EP-38 1/17/1994	EP-38 2/7/1995	EP-39 1/17/1994	EP-39 2/7/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
o-Xylene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
p-Xylene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<0.2	<0.0002	<0.2	<0.0002	<0.2	<0.0002	<0.2	0.0002	<0.2	<0.0002

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-40 1/17/1994	EP-40 2/7/1995	EP-42 1/17/1994	EP-42 5/25/1994	EP-42 8/9/1994	EP-42 11/8/1994	EP-42 2/7/1995	EP-42 5/16/1995	EP-42 8/15/1995	EP-42 11/14/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene	<0.001	<0.001	<0.001	<0.001			<0.001			
o-Xylene	<0.001	<0.001	<0.001	<0.001			<0.001			
p-Xylene	<0.001	<0.001	<0.001	<0.001			<0.001			
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Total Xylenes					<0.0003	<0.001		<0.0003	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<0.2	<0.0002	<0.2	<0.2	<1	0.8	<0.0002	<1	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-48 5/16/1995	EP-48 8/15/1995	EP-48 11/14/1995	EP-49 8/8/1994	EP-5 5/25/1994	EP-5 8/8/1994	EP-5 11/8/1994	EP-5 2/8/1995	EP-5 5/16/1995	EP-5 8/15/1995
Dissolved Metals (mg/L)										
Arsenic				0.01						
Barium				<0.2						
Cadmium				0.7						
Calcium				480						
Chromium				<0.1						
Copper				0.5						
Iron				25						
Lead				<0.2						
Magnesium				150						
Manganese				18						
Mercury				<0.001						
Potassium				360						
Selenium				2.5						
Silver				<0.05						
Sodium				1700						
Zinc				100						
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity				790						
Carbonate Alkalinity				<2						
Chloride				630						
Fluoride				32						
Nitrate										
Nitrate + Nitrite				26						
Sulfate				5800						
Total Dissolved Solids				10000						
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene					<0.001			<0.001		
o-Xylene					<0.001			<0.001		
p-Xylene					<0.001			<0.001		
Toluene	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.0003	<0.01	<0.001			<0.0003	<0.001		<0.0003	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	4.6		<0.2	<1	0.8	0.001	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-5 11/13/1995	EP-51 1/18/1994	EP-51 5/26/1994	EP-51 8/8/1994	EP-51 11/14/1994	EP-51 2/9/1995	EP-51 5/17/1995	EP-51 8/16/1995	EP-51 11/15/1995	EP-52 11/14/1994
Dissolved Metals (mg/L)										
Arsenic				0.02						
Barium				<0.2						
Cadmium				0.06						
Calcium				650						
Chromium				<0.1						
Copper				0.1						
Iron				0.3						
Lead				<0.2						
Magnesium				410						
Manganese				2.3						
Mercury				<0.001						
Potassium				39						
Selenium				0.09						
Silver				<0.05						
Sodium				1400						
Zinc				1.2						
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity				250						
Carbonate Alkalinity				<2						
Chloride				2000						
Fluoride				22						
Nitrate				110						
Nitrate + Nitrite										
Sulfate				1900						
Total Dissolved Solids				7000						
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene		<0.001	<0.001		<0.001	<0.001				<0.001
o-Xylene		<0.001	<0.001		<0.001	<0.001				<0.001
p-Xylene		<0.001	<0.001		<0.001	<0.001				<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001			<0.0003			<0.0003	<0.001	<0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<0.2	<0.2	<1	0.3	0.0005	<1	<1	<1	<0.2

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-52 2/9/1995	EP-52 8/16/1995	EP-52 11/15/1995	EP-53 1/18/1994	EP-53 5/26/1994	EP-53 8/3/1994	EP-53 11/14/1994	EP-53 2/9/1995	EP-53 5/18/1995	EP-53 8/18/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene	<0.001			<0.001	<0.001		<0.001	<0.001		
o-Xylene	<0.001			<0.001	<0.001		<0.001	<0.001		
p-Xylene	<0.001			<0.001	<0.001		<0.001	<0.001		
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes		<0.001	<0.001			<0.0003			<0.0003	0.003
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	0.0004	<1	<1	<0.2	<0.2	<1	<0.2	0.0005	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-53 11/15/1995	EP-54 1/13/1994	EP-54 5/26/1994	EP-54 8/5/1994	EP-54 11/14/1994	EP-54 2/9/1995	EP-54 5/17/1995	EP-54 8/18/1995	EP-54 11/15/1995	EP-55 1/12/1994
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.02	<0.001	0.009	0.004	<0.001	0.002	0.003	0.004	<0.02
Ethylbenzene	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0001
m-Xylene		<0.02	<0.001		<0.001	<0.001				<0.02
o-Xylene		<0.02	<0.001		<0.001	<0.001				<0.02
p-Xylene		<0.02	<0.001		<0.001	<0.001				0.0001
Toluene	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02
Total Xylenes	<0.001			0.0006			0.006	0.009	0.007	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<10	<0.2	<1	<0.2	0.0004	<1	<1	<1	620

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-56 1/14/1994	EP-56 5/26/1994	EP-56 8/3/1994	EP-56 11/14/1994	EP-56 2/9/1995	EP-56 5/17/1995	EP-56 8/16/1995	EP-56 11/15/1995	EP-57 1/16/1994	EP-57 8/5/1994
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.02	<0.001	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	0.0001	0.01
Ethylbenzene	<0.02	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
m-Xylene	<0.02	<0.001		<0.001	<0.001				0.0002	
o-Xylene	<0.02	<0.001		<0.001	<0.001				0.0001	
p-Xylene	<0.02	<0.001		<0.001	<0.001				0.002	
Toluene	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001
Total Xylenes			<0.0003			<0.0003	<0.001	0.001		0.0004
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	43	<0.2	<1	<0.2	0.0006	<1	<1	<1	8800	2.1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-57 11/11/1994	EP-58 1/16/1994	EP-59 1/8/1994	EP-59 1/17/1994	EP-59 1/27/1994	EP-59 5/25/1994	EP-59 8/5/1994	EP-59 11/11/1994	EP-59 2/10/1995	EP-59 5/18/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	0.05	<0.02		<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	0.006	<0.02		<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene	<0.005	<0.02		<0.02	<0.001	<0.001		<0.001	<0.001	
o-Xylene	<0.005	<0.02		<0.02	<0.001	<0.001		<0.001	<0.001	
p-Xylene	<0.005	<0.02		<0.02	<0.001	<0.001		<0.001	<0.001	
Toluene	<0.005	<0.02		<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes							<0.0003			<0.0003
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	0.4	<10	<0.2	<10	3.6	<0.2	<1	0.3	<0.0002	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-59 8/18/1995	EP-59 11/17/1995	EP-6 2/8/1995	EP-6 5/16/1995	EP-60 1/8/1994	EP-60 1/17/1994	EP-60 1/26/1994	EP-60 5/25/1994	EP-60 8/5/1994	EP-60 11/11/1994
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001		<0.02	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001		<0.02	<0.001	<0.001	<0.001	<0.001
m-Xylene			<0.001			<0.02	<0.001	<0.001		<0.001
o-Xylene			<0.001			<0.02	<0.001	<0.001		<0.001
p-Xylene			<0.001			<0.02	<0.001	<0.001		<0.001
Toluene	<0.001	<0.001	<0.001	<0.001		<0.02	<0.001	<0.001	<0.001	<0.001
Total Xylenes	0.001	<0.001		<0.0003					<0.0003	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<0.0002	<1	<0.2	<10	<0.2	<0.2	<1	0.2

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-60 2/10/1995	EP-60 5/19/1995	EP-60 8/21/1995	EP-60 11/17/1995	EP-61 1/17/1994	EP-61 1/26/1994	EP-61 11/11/1994	EP-61 2/10/1995	EP-62 1/18/1994	EP-62 5/25/1994
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.02	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.02	<0.001
m-Xylene	<0.001				<0.02	<0.001	<0.001	<0.001	<0.02	<0.001
o-Xylene	<0.001				<0.02	<0.001	<0.001	<0.001	<0.02	<0.001
p-Xylene	<0.001				<0.02	<0.001	<0.001	<0.001	<0.02	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.02	<0.001
Total Xylenes		<0.0003	0.001	<0.001						
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<0.0002	<1	<1	<1	490	8.2	0.4	<0.0002	<10	<0.2

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-62 11/11/1994	EP-62 2/10/1995	EP-62 5/19/1995	EP-62 8/21/1995	EP-62 11/17/1995	EP-63 1/19/1994	EP-63 5/25/1994	EP-63 8/8/1994	EP-63 11/11/1994	EP-63 2/10/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001
m-Xylene	<0.001	<0.001				<0.02	<0.001		<0.001	<0.001
o-Xylene	<0.001	<0.001				<0.02	<0.001		<0.001	<0.001
p-Xylene	<0.001	<0.001				<0.02	<0.001		<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001
Total Xylenes			<0.0003	0.001	<0.001			<0.0003		
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<0.2	<0.0002	<1	<1	<1	<10	<0.2	<1	<0.2	<0.0002

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-63 5/19/1995	EP-63 8/21/1995	EP-63 11/17/1995	EP-64 1/25/1994	EP-64 1/26/1994	EP-64 5/25/1994	EP-64 8/8/1994	EP-64 11/11/1994	EP-64 2/10/1995	EP-64 5/18/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene				<0.02	<0.001	<0.001		<0.001	<0.001	
o-Xylene				<0.02	<0.001	<0.001		<0.001	<0.001	
p-Xylene				<0.02	<0.001	<0.001		<0.001	<0.001	
Toluene	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.0003	<0.001	<0.001				<0.0003			<0.0003
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<1	70	2.4	<0.2	<1	<0.2	<0.0002	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-64 8/18/1995	EP-64 11/17/1995	EP-65 1/27/1994	EP-66 1/27/1994	EP-66 5/25/1994	EP-66 8/5/1994	EP-66 11/11/1994	EP-66 2/10/1995	EP-66 5/19/1995	EP-66 8/21/1995
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene			<0.02	<0.02	<0.001		<0.001	<0.001		
o-Xylene			<0.02	<0.02	<0.001		<0.001	<0.001		
p-Xylene			<0.02	<0.02	<0.001		<0.001	<0.001		
Toluene	<0.001	<0.001	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	0.001	<0.001				<0.0003			<0.0003	0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	240	<10	<0.2	<1	<0.2	<0.0002	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-66 11/17/1995	EP-7 1/16/1994	EP-7 5/25/1994	EP-7 8/8/1994	EP-7 11/8/1994	EP-7 2/8/1995	EP-7 5/16/1995	EP-7 8/15/1995	EP-7 11/13/1995	EP-9 1/16/1994
Dissolved Metals (mg/L)										
Arsenic										
Barium										
Cadmium										
Calcium										
Chromium										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Potassium										
Selenium										
Silver										
Sodium										
Zinc										
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity										
Carbonate Alkalinity										
Chloride										
Fluoride										
Nitrate										
Nitrate + Nitrite										
Sulfate										
Total Dissolved Solids										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene		<0.001	<0.001			<0.001				<0.001
o-Xylene		<0.001	<0.001			<0.001				<0.001
p-Xylene		<0.001	<0.001			<0.001				<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001			<0.0003	<0.001		<0.0003	<0.01	<0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<0.2	<0.2	<1	0.7	0.0003	<1	<1	<1	<0.2

Table I-2
Groundwater Sampling Results (ASARCO): 1994 - 1995

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location Sampling Date	EP-9 8/9/1994	EP-9 11/8/1994	EP-9 2/8/1995	EP-9 8/16/1995	EP-9 11/14/1995
Dissolved Metals (mg/L)					
Arsenic					
Barium					
Cadmium					
Calcium					
Chromium					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Mercury					
Potassium					
Selenium					
Silver					
Sodium					
Zinc					
Water Quality Parameters (mg/L)					
Bicarbonate Alkalinity					
Carbonate Alkalinity					
Chloride					
Fluoride					
Nitrate					
Nitrate + Nitrite					
Sulfate					
Total Dissolved Solids					
Volatile Organic Compounds (mg/L)					
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene			<0.001		
o-Xylene			<0.001		
p-Xylene			<0.001		
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.0003	<0.001		<0.001	<0.001
Petroleum Hydrocarbons (mg/L)					
Total Petroleum Hydrocarbons	<1	0.6	<0.0002	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-1 8/13/1996	EP-13 2/20/1996	EP-13 5/7/1996	EP-13 8/7/1996	EP-13 11/7/1996	EP-14 2/20/1996	EP-15 11/7/1996	EP-17 2/19/1996	EP-17 7/26/1996	EP-19 2/19/1996
Volatile Organic Compounds (mg/L)										
Benzene		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
Ethylbenzene		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
Toluene		0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
Total Xylenes		<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene	<0.01									
2-Methylnaphthalene	<0.01									
Acenaphthene	<0.01									
Acenaphthylene	<0.01									
Anthracene	<0.01									
Benzo(a)anthracene	<0.01									
Benzo(a)pyrene										
Benzo(b)fluoranthene	<0.01									
Benzo(g,h,i)perylene	<0.01									
Benzo(k)fluoranthene	<0.01									
Chrysene	<0.01									
Dibenz(a,h)anthracene	<0.01									
Fluoranthene	<0.01									
Fluorene	<0.01									
Indeno(1,2,3-cd)pyrene	<0.01									
Naphthalene	<0.01									
Phenanthrene	<0.01									
Pyrene	<0.01									
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons		<1	<1	<1	<1	<1	<1	<1		<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids									1900	

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-20 2/20/1996	EP-20 5/7/1996	EP-20 8/6/1996	EP-20 11/7/1996	EP-23 2/22/1996	EP-23 5/8/1996	EP-23 8/9/1996	EP-23 11/8/1996	EP-26 2/22/1996	EP-26 5/8/1996
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	0.1	<0.001	0.1	0.09	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	0.03	<0.001	0.03	0.02	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	0.004	<0.001	<0.002	<0.001
Total Xylenes	<0.001	<0.002	<0.001	<0.001	0.002	<0.002	0.01	0.002	<0.001	<0.002
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenz(a,h)anthracene										
Fluoranthene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<1	<2.1	<1	1.7	3	<1	<1	<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids										

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-26 8/7/1996	EP-26 11/8/1996	EP-29 2/19/1996	EP-3 2/21/1996	EP-3 5/7/1996	EP-31 2/19/1996	EP-32 2/20/1996	EP-33 2/19/1996	EP-35 2/19/1996	EP-36 2/20/1996
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenz(a,h)anthracene										
Fluoranthene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids										

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-37 2/19/1996	EP-38 2/19/1996	EP-39 2/20/1996	EP-4 2/19/1996	EP-40 2/20/1996	EP-42 2/19/1996	EP-42 5/7/1996	EP-42 8/6/1996	EP-42 11/7/1996	EP-48 2/19/1996
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenz(a,h)anthracene										
Fluoranthene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<1	<1	<1	<1	<1	<1	<1.9	<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids										

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-48 5/7/1996	EP-48 8/6/1996	EP-48 11/7/1996	EP-5 2/19/1996	EP-5 5/7/1996	EP-5 8/6/1996	EP-5 11/7/1996	EP-51 2/22/1996	EP-51 5/8/1996	EP-51 8/7/1996
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001
Total Xylenes	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenz(a,h)anthracene										
Fluoranthene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	1.8	5.2	<1	<1	<1	<1	<1.6	<1	<1	<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids										

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location Sampling Date	EP-52 2/22/1996	EP-53 2/22/1996	EP-53 5/8/1996	EP-53 8/9/1996	EP-53 11/8/1996	EP-54 2/23/1996	EP-54 5/8/1996	EP-54 8/9/1996	EP-54 11/8/1996	EP-56 2/22/1996
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.003	0.006	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.002	<0.001	<0.001	0.004	<0.002	0.002	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenz(a,h)anthracene										
Fluoranthene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids										

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-56 5/8/1996	EP-56 8/7/1996	EP-56 11/8/1996	EP-58 7/26/1996	EP-59 2/21/1996	EP-59 5/10/1996	EP-59 8/14/1996	EP-59 11/11/1996	EP-6 2/19/1996	EP-6 5/7/1996
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	0.002	<0.001	<0.001
Total Xylenes	<0.002	<0.001	<0.001		<0.001	<0.002	<0.001	0.002	<0.001	<0.002
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene				<0.01						
2-Methylnaphthalene				<0.01						
Acenaphthene				<0.01						
Acenaphthylene				<0.01						
Anthracene				<0.01						
Benzo(a)anthracene				<0.01						
Benzo(a)pyrene				<0.01						
Benzo(b)fluoranthene				<0.01						
Benzo(g,h,i)perylene				<0.01						
Benzo(k)fluoranthene				<0.01						
Chrysene				<0.01						
Dibenz(a,h)anthracene				<0.01						
Fluoranthene				<0.01						
Fluorene				<0.01						
Indeno(1,2,3-cd)pyrene				<0.01						
Naphthalene				0.04						
Phenanthrene				0.02						
Pyrene				<0.01						
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<1		<1	<1	<1	<1	<1	<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids										

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-60 2/21/1996	EP-60 5/10/1996	EP-60 7/26/1996	EP-60 8/14/1996	EP-60 11/11/1996	EP-62 2/21/1996	EP-62 5/10/1996	EP-62 8/14/1996	EP-62 11/11/1996	EP-63 2/21/1996
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.002		<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenz(a,h)anthracene										
Fluoranthene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1		<1	<1	<1	<1	<1	<1	<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids			6700							

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location Sampling Date	EP-63 5/8/1996	EP-63 8/14/1996	EP-63 11/11/1996	EP-64 2/21/1996	EP-64 5/8/1996	EP-64 8/14/1996	EP-64 11/11/1996	EP-66 2/21/1996	EP-66 5/10/1996	EP-66 8/14/1996
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001
Semivolatile Organic Compounds (mg/L)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenz(a,h)anthracene										
Fluoranthene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Quality Parameters (mg/L)										
Total Dissolved Solids										

Table I-2
Groundwater Sampling Results (ASARCO): 1996

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-66 11/11/1996	EP-7 2/19/1996	EP-7 5/7/1996	EP-7 8/6/1996	EP-7 11/7/1996	EP-9 2/20/1996	EP-9 8/7/1996	EP-9 11/7/1996
Volatile Organic Compounds (mg/L)								
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)								
1-Methylnaphthalene								
2-Methylnaphthalene								
Acenaphthene								
Acenaphthylene								
Anthracene								
Benzo(a)anthracene								
Benzo(a)pyrene								
Benzo(b)fluoranthene								
Benzo(g,h,i)perylene								
Benzo(k)fluoranthene								
Chrysene								
Dibenz(a,h)anthracene								
Fluoranthene								
Fluorene								
Indeno(1,2,3-cd)pyrene								
Naphthalene								
Phenanthrene								
Pyrene								
Petroleum Hydrocarbons (mg/L)								
Total Petroleum Hydrocarbons	<1	<1	<1	<1	<1.9	<1	<1	<1
Water Quality Parameters (mg/L)								
Total Dissolved Solids								

Table I-2
Groundwater Sampling Results (ASARCO): 1997

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-1 2/6/1997	EP-11 2/11/1997	EP-12 11/3/1997	EP-13 2/6/1997	EP-13 8/7/1997	EP-13 11/6/1997	EP-14 2/6/1997	EP-14 11/5/1997	EP-15 5/14/1997	EP-15 8/7/1997	EP-15 11/6/1997	EP-15R 2/6/1997	EP-17 2/5/1997	EP-18 2/5/1997
Dissolved Metals (mg/L)														
Arsenic			1.3		49	46		1.1		0.08	0.01			
Cadmium			<0.005		0.8	0.8		<0.005		<0.005	<0.005			
Calcium			370		434	371		364		125	116			
Chromium			<0.01		<0.01	<0.01		<0.01		<0.01	<0.01			
Copper			<0.03		<0.03	<0.03		<0.03		<0.03	<0.03			
Iron			<0.1		<0.1	0.2		0.1		<0.1	<0.1			
Lead			<0.003		0.008	<0.003		<0.003		<0.003	<0.003			
Magnesium			121		73	70		92		44	42			
Potassium			17		110	91		53		13	10			
Selenium			6.9		7	6.7		0.4		0.2	0.2			
Sodium			995		3087	3043		623		525	529			
Zinc			0.02		0.05 J	0.03		<0.02		0.02 J	0.02			
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity			764		429	422		332		325	290			
Chloride			539		673	724		347		315	333			
Fluoride			1		1.5	1.4		1.5		0.9	0.9			
Nitrate + Nitrite			21		104	105		19		23	12			
pH			7.3		7.7	7.8		7.5		7.8	7.9			
Specific Conductivity			5840		12500	12210		4430		3150	3060			
Sulfate			1925		5745	5541		1876		889	974			
Total Alkalinity					352					266				
Total Dissolved Solids			4846	10000	11243	10653		3686		2263	2189	2600		
Total Suspended Solids			7.9		52	14		3.6		220	165			
Volatile Organic Compounds (mg/L)														
Benzene	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene		0.2												
Acenaphthene		0.07		<0.01								<0.01		
Acenaphthylene		0.01		<0.01								<0.01		
Anthracene		0.06		<0.01								<0.01		
Benzo(a)anthracene		<0.01		<0.01								<0.01		
Benzo(a)pyrene		<0.01		<0.01								<0.01		
Benzo(b)fluoranthene		<0.01		<0.01								<0.01		
Benzo(g,h,i)perylene		<0.01		<0.01								<0.01		
Benzo(k)fluoranthene		<0.01		<0.01								<0.01		
Chrysene		<0.01		<0.01								<0.01		
Dibenz(a,h)anthracene		<0.01		<0.01								<0.01		
Fluoranthene		<0.01		<0.01								<0.01		
Fluorene		0.1		<0.01								<0.01		
Indeno(1,2,3-cd)pyrene		<0.01		<0.01								<0.01		
Naphthalene		0.04		<0.01								<0.01		
Phenanthrene		0.3		<0.01								<0.01		
Pyrene		0.05		<0.01								<0.01		
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	<1			<1	<1	<1	<1	<1	<1	<1	<1	<1	4.8	4.8

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Groundwater Sampling Results (ASARCO): 1997

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Location / Sampling Date	EP-19 2/11/1997	EP-20 2/5/1997	EP-20 5/13/1997	EP-20 8/7/1997	EP-20 11/3/1997	EP-21 11/18/1997	EP-22 8/15/1997	EP-22 11/18/1997	EP-23 2/7/1997	EP-23 5/15/1997	EP-23 8/11/1997	EP-23 11/4/1997	EP-24 8/15/1997	EP-24 11/18/1997
Dissolved Metals (mg/L)														
Arsenic				1.2	1.2	0.07	0.04	<0.04			2.5	4	0.5	0.07
Cadmium				0.04	0.04	<0.005	0.006	<0.005			<0.005	<0.005	<0.005	<0.005
Calcium				584	520	<85	106	350			218	181	174	393
Chromium				<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01
Copper				<0.03	0.03	<0.03	0.03	<0.03			<0.03	<0.03	<0.03	<0.03
Iron				<0.1	<0.1	0.4	<0.1	<0.1			0.7	0.5	4.4	<0.1
Lead				<0.003	<0.003	<0.003	0.02	0.006			<0.003	<0.003	<0.003	<0.003
Magnesium				323	310	49	91	164			115	96	55	56
Potassium				71	56	450	180	116			80	76	25	53
Selenium				0.4	0.4	0.07	0.3	0.1			0.03	0.02	0.01	0.08
Sodium				2070	2253	1032	1168	1942			930	876	910	1030
Zinc				0.06 J	0.06	0.03	0.6	0.9			0.03	0.03	0.04	<0.02
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity				400	403	1510	1315	399			259	322	976	1037
Chloride				817	786	826	711	1368			494	541	831	1003
Fluoride				2.3	2.4	5.4	5.1	4.2			3.1	3.2	1.6	<3.1
Nitrate + Nitrite				235	107	<0.05	100	158			0.3	0.2	<0.05	<0.05
pH				7.4	7.3	7.8	7.9	7.4			7.5	7.7	8	7.7
Specific Conductivity				11160	10760	6260	8540	9980			6790	6130	5150	5940
Sulfate				4582	4608	1258	1866	3341			3239	2236	765	1338
Total Alkalinity				328			1078				212		800	
Total Dissolved Solids				10541	10175	3282	5188	7299			5028	4089	3451	4168
Total Suspended Solids				161	78	320	14	<9 UJ			124	61	17	<8 UJ
Volatile Organic Compounds (mg/L)														
Benzene		<0.001	<0.001	<0.001	<0.001				0.08	0.06	0.05	0.03		
Ethylbenzene		<0.001	<0.001	<0.001	<0.001				0.02	0.02	0.02	0.02		
Toluene		<0.001	<0.001	<0.001	<0.001				<0.002	0.001	0.001	<0.001		
Total Xylenes		<0.001	<0.001	<0.001	<0.001				0.02	0.003	0.004	0.002		
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene	2.4													
Acenaphthene	0.3													
Acenaphthylene	0.08													
Anthracene	0.2													
Benzo(a)anthracene	0.02													
Benzo(a)pyrene	<0.01													
Benzo(b)fluoranthene	<0.01													
Benzo(g,h,i)perylene	<0.01													
Benzo(k)fluoranthene	<0.01													
Chrysene	0.02													
Dibenz(a,h)anthracene	<0.01													
Fluoranthene	0.03													
Fluorene	0.5													
Indeno(1,2,3-cd)pyrene	<0.01													
Naphthalene	0.4													
Phenanthrene	1.3													
Pyrene	0.02													
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons		<1	<1	<1	<1				<1	1.6	7.6	3.3		

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Location / Sampling Date	EP-25 8/15/1997	EP-25 11/19/1997	EP-26 2/7/1997	EP-26 5/15/1997	EP-26 8/11/1997	EP-26 11/4/1997	EP-29 2/5/1997	EP-29 8/7/1997	EP-29 11/3/1997	EP-3 2/6/1997	EP-3 5/13/1997	EP-31 2/5/1997	EP-32 2/5/1997	EP-35 2/5/1997
Dissolved Metals (mg/L)														
Arsenic	3	3.5			0.3	0.3		0.3	0.5					
Cadmium	<0.005	<0.005			0.6	1.5		<0.005	<0.005					
Calcium	113	74			23	62		79	50					
Chromium	<0.01	<0.01			<0.01	<0.01		<0.01	<0.01					
Copper	<0.03	<0.03			0.2	0.2		<0.03	<0.03					
Iron	2.6	4.8			0.1	<0.1		<0.1	1.8					
Lead	<0.003	0.01			0.04	0.01		<0.003	<0.003					
Magnesium	40	33			3.7	13		27	18					
Potassium	78	59			6.9	20		29	24					
Selenium	0.2	0.08			0.08	0.3		0.2	0.1					
Sodium	1040	1136			88	244		567	576					
Zinc	0.02	0.04			1.9	4.2		0.02 J	0.03					
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	1208	1556			45	44		381	395					
Chloride	1127	965			43	163		289	305					
Fluoride	1.6	1.7			0.9	1.4		3	3					
Nitrate + Nitrite	0.9	<0.05			2.3	3.9		7.6	6.3					
pH	7.4	7.8			7.2	7.3		8	7.9					
Specific Conductivity	5990	5470			544	1700		3090	2960					
Sulfate	695	304			157	561		742	706					
Total Alkalinity	990				37			312						
Total Dissolved Solids	3995	3213 J			395	1191		2085	2096			3300		
Total Suspended Solids	84	43			163	99		1.1	56					
Volatile Organic Compounds (mg/L)														
Benzene			<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene			<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Toluene			<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes			<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene														
Acenaphthene												<0.01		
Acenaphthylene												<0.01		
Anthracene												<0.01		
Benzo(a)anthracene												<0.01		
Benzo(a)pyrene												<0.01		
Benzo(b)fluoranthene												<0.01		
Benzo(g,h,i)perylene												<0.01		
Benzo(k)fluoranthene												<0.01		
Chrysene												<0.01		
Dibenz(a,h)anthracene												<0.01		
Fluoranthene												<0.01		
Fluorene												<0.01		
Indeno(1,2,3-cd)pyrene												<0.01		
Naphthalene												<0.01		
Phenanthrene												<0.01		
Pyrene												<0.01		
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons			<1	2.8	4.2	<1	<1			<1	<1	<1	<1	<1

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Location / Sampling Date	EP-35 8/7/1997	EP-35 11/3/1997	EP-36 2/5/1997	EP-37 2/5/1997	EP-38 2/5/1997	EP-39 2/5/1997	EP-4 2/6/1997	EP-4 8/6/1997	EP-4 11/4/1997	EP-40 2/5/1997	EP-41 2/5/1997	EP-42 2/5/1997	EP-42 5/13/1997	EP-42 8/7/1997
Dissolved Metals (mg/L)														
Arsenic	0.4	0.4						0.2	0.1					
Cadmium	<0.005	<0.005						<0.005	<0.005					
Calcium	395	408						135	56					
Chromium	<0.01	<0.01						<0.01	<0.01					
Copper	<0.03	<0.03						<0.03	<0.03					
Iron	<0.1	<0.1						1.1	0.9					
Lead	<0.003	<0.003						<0.003	<0.003					
Magnesium	176	165						36	15					
Potassium	26	19						17	12					
Selenium	1.4	6.7						<0.005	<0.005					
Sodium	1124	1116						356	251					
Zinc	0.03 J	0.02						<0.02	<0.02					
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	239	493						388	346					
Chloride	575	527						356	196					
Fluoride	1	1.1						1.2	1.4					
Nitrate + Nitrite	67	86						<0.05	<0.05					
pH	8	7.5						7.7	7.8					
Specific Conductivity	6530	6340						2350	1656					
Sulfate	2558	2396						454	287					
Total Alkalinity	196							318						
Total Dissolved Solids	5678	5731					1100	1557	1102		3900			
Total Suspended Solids	4.8	73						14	22					
Volatile Organic Compounds (mg/L)														
Benzene			<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene			<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Toluene			<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes			<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene											<0.01			
Acenaphthene							<0.01				<0.01			
Acenaphthylene							<0.01				<0.01			
Anthracene							<0.01				<0.01			
Benzo(a)anthracene							<0.01				<0.01			
Benzo(a)pyrene							<0.01				<0.01			
Benzo(b)fluoranthene							<0.01				<0.01			
Benzo(g,h,i)perylene							<0.01				<0.01			
Benzo(k)fluoranthene							<0.01				<0.01			
Chrysene							<0.01				<0.01			
Dibenz(a,h)anthracene							<0.01				<0.01			
Fluoranthene							<0.01				<0.01			
Fluorene							<0.01				<0.01			
Indeno(1,2,3-cd)pyrene							<0.01				<0.01			
Naphthalene							<0.01				<0.01			
Phenanthrene							<0.01				<0.01			
Pyrene							<0.01				<0.01			
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons			<1	<1	<1	<1	<1			<1	2.3	<1	<1	<1

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Location / Sampling Date	EP-42 11/3/1997	EP-43 2/11/1997	EP-43 11/3/1997	EP-48 2/5/1997	EP-48 5/15/1997	EP-48 8/7/1997	EP-48 11/3/1997	EP-49 11/19/1997	EP-5 2/6/1997	EP-5 5/12/1997	EP-5 8/6/1997	EP-5 11/4/1997	EP-51 2/7/1997	EP-51 5/15/1997
Dissolved Metals (mg/L)														
Arsenic			0.8					207			0.05	0.03		
Cadmium			<0.005					43			<0.005	<0.005		
Calcium			118					493			96	80		
Chromium			<0.01					0.2			0.02	<0.01		
Copper			<0.03					5.1			<0.03	<0.03		
Iron			1.1					1732			0.3	<0.1		
Lead			<0.003					0.1			<0.003	0.01		
Magnesium			55					303			39	35		
Potassium			60					182			16	11		
Selenium			0.05					0.1			<0.005	0.03		
Sodium			974					869			650	623		
Zinc			<0.02					579			<0.02	0.03		
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity			656					<1			935	910		
Chloride			806					867			424	343		
Fluoride			2.6					33			2.8	2.8		
Nitrate + Nitrite			<0.05					<0.2			<0.05	<0.05		
pH			7.6					3.5			7.7	8		
Specific Conductivity			4950					11740			3350	3100		
Sulfate			987					9515			544	434		
Total Alkalinity											766			
Total Dissolved Solids			3361					17185	2100		2342	2141		
Total Suspended Solids			14					465			199	186		
Volatile Organic Compounds (mg/L)														
Benzene	<0.001			<0.001	<0.001	<0.002	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001			<0.001	<0.001	<0.002	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001			<0.001	<0.001	<0.002	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	0.002			<0.001	0.002	<0.002	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene		0.03		<0.01										
Acenaphthene		0.1		<0.01					<0.01					
Acenaphthylene		0.02		<0.01					<0.01					
Anthracene		0.06		<0.01					<0.01					
Benzo(a)anthracene		<0.01		<0.01					<0.01					
Benzo(a)pyrene		<0.01		<0.01					<0.01					
Benzo(b)fluoranthene		<0.01		<0.01					<0.01					
Benzo(g,h,i)perylene		<0.01		<0.01					<0.01					
Benzo(k)fluoranthene		<0.01		<0.01					<0.01					
Chrysene		<0.01		<0.01					<0.01					
Dibenz(a,h)anthracene		<0.01		<0.01					<0.01					
Fluoranthene		0.01		<0.01					<0.01					
Fluorene		0.2		<0.01					<0.01					
Indeno(1,2,3-cd)pyrene		<0.01		<0.01					<0.01					
Naphthalene		<0.01		<0.01					<0.01					
Phenanthrene		0.4		<0.01					<0.01					
Pyrene		0.2		<0.01					<0.01					
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	<1			<1	30	4.2	<1		<1	<1	<1	<1	<1	<1

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Location / Sampling Date	EP-51 8/11/1997	EP-51 8/26/1997	EP-51 11/6/1997	EP-52 11/6/1997	EP-53 2/6/1997	EP-53 5/14/1997	EP-53 8/11/1997	EP-53 11/4/1997	EP-54 2/6/1997	EP-54 5/15/1997	EP-54 8/11/1997	EP-54 8/26/1997	EP-54 11/6/1997	EP-55 2/7/1997
Dissolved Metals (mg/L)														
Arsenic		0.03	0.3	1			51					22	29	
Cadmium		0.03	0.2	0.6			1.3					5.7	4.5	
Calcium		655	658	537			394					432	455	
Chromium		0.03	0.03	0.02			<0.01					<0.01	<0.01	
Copper		0.08	0.2	0.5			<0.03					0.2	0.6	
Iron		1.4	2.2	0.6			<0.1					13	14	
Lead		<0.003	<0.003	0.04			<0.003					<0.003	<0.003	
Magnesium		478	469	211			89					276	307	
Potassium		54	47	23			147					345	375	
Selenium		0.2	0.2	0.4			0.8					0.08	0.07	
Sodium		1416	1437	1893			1450					1842	1984	
Zinc		0.5	4.4	2.6			3.6					113	94	
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity		261	268	571			307					439	497	
Chloride		2649	2609	1330			494					891	791	
Fluoride		0.8	1.5	6.3			4.9					16	13	
Nitrate + Nitrite		115	138	157			122					0.2	0.3	
pH		7.3	7.3	7.1			7.2					6.9	6.8	
Specific Conductivity		11800	11670	9750			7790					11340	10750	
Sulfate		2125	2401	2953			3200					5049	5255	
Total Alkalinity		214					252					360		
Total Dissolved Solids		9539	9116	8243			6739					10210	9568	
Total Suspended Solids		35 J	41	57			239					386	222	
Volatile Organic Compounds (mg/L)														
Benzene	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	0.005	0.007		0.005	0.01
Ethylbenzene	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	0.003	0.009		0.008	<0.002
Toluene	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.002
Total Xylenes	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001		<0.001	0.006
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene														
Acenaphthene														
Acenaphthylene														
Anthracene														
Benzo(a)anthracene														
Benzo(a)pyrene														
Benzo(b)fluoranthene														
Benzo(g,h,i)perylene														
Benzo(k)fluoranthene														
Chrysene														
Dibenz(a,h)anthracene														
Fluoranthene														
Fluorene														
Indeno(1,2,3-cd)pyrene														
Naphthalene														
Phenanthrene														
Pyrene														
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	69

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Location / Sampling Date	EP-55 8/15/1997	EP-55 11/19/1997	EP-56 2/7/1997	EP-56 5/14/1997	EP-56 8/11/1997	EP-56 8/26/1997	EP-56 11/4/1997	EP-57 8/16/1997	EP-57 11/14/1997	EP-58 8/16/1997	EP-58 11/14/1997	EP-59 2/8/1997	EP-59 5/13/1997	EP-59 8/9/1997
Dissolved Metals (mg/L)														
Arsenic	62	59				1.9	2.9	1.1	1	1.4	4.8			3.6
Cadmium	0.1	0.04				0.004	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005
Calcium	569	521				255	265	129	104	463	487			191
Chromium	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01
Copper	<0.03	<0.03				<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03
Iron	229	130				<0.1	<0.1	0.6	0.3	2.7	1			<0.1
Lead	0.02	<0.003				0.003	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003
Magnesium	373	334				63	65	87	79	161	178			93
Potassium	227	211				27	26	23	25	220	260			105
Selenium	0.3	0.2				0.05	0.06	0.03	<0.005	0.2	0.03			0.2
Sodium	1602	1830				1026	1080	587	525	2098	2396			876
Zinc	200	82				0.03	0.02	0.03	<0.02	0.02	0.02			0.02 J
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	561	1098				320	354	1259	1143	2318	1274			527
Chloride	945	998				666	646	284	278	989	930			419
Fluoride	17	24				2.1	2.4	1.2	1	4.9	4.7			4.9
Nitrate + Nitrite	<0.05	<0.05				0.8	2	3.8	1.5	<0.05	<0.05			7.7
pH	7	6.9				7.6	7.6	7.9	7.4	6.9	6.9			7.7
Specific Conductivity	10550	10480				5600	5520	3330	3070	11230	11480			4780
Sulfate	4747	5186				1864	1863	521	466	4586	4699			1632
Total Alkalinity	460					262		1032		1900				432
Total Dissolved Solids	9746	7450				4474	4378	2510	2159	9153	9286			3693
Total Suspended Solids	947	516				243	565	452	14	7753	28			<1
Volatile Organic Compounds (mg/L)														
Benzene			<0.001	<0.001	<0.001		<0.001					<0.001	<0.001	<0.001
Ethylbenzene			<0.001	<0.001	<0.001		<0.001					<0.001	<0.001	<0.001
Toluene			<0.001	<0.001	<0.001		<0.001					<0.001	<0.001	<0.001
Total Xylenes			<0.001	<0.001	<0.001		<0.001					<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene														
Acenaphthene														
Acenaphthylene														
Anthracene														
Benzo(a)anthracene														
Benzo(a)pyrene														
Benzo(b)fluoranthene														
Benzo(g,h,i)perylene														
Benzo(k)fluoranthene														
Chrysene														
Dibenz(a,h)anthracene														
Fluoranthene														
Fluorene														
Indeno(1,2,3-cd)pyrene														
Naphthalene														
Phenanthrene														
Pyrene														
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons			<1	<1	<1		<1					<1	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1997

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-59 11/5/1997	EP-6 2/6/1997	EP-6 5/13/1997	EP-6 8/6/1997	EP-6 11/4/1997	EP-60 2/8/1997	EP-60 5/13/1997	EP-60 8/8/1997	EP-60 11/5/1997	EP-61 8/16/1997	EP-61 11/14/1997	EP-62 2/8/1997	EP-62 5/13/1997	EP-62 8/9/1997
Dissolved Metals (mg/L)														
Arsenic	3.8			0.03	0.03			0.007	<0.005	<0.005	0.01			1.1
Cadmium	<0.005			<0.005	<0.005			<0.005	<0.005	<0.005	<0.005			<0.005
Calcium	169			411	365			360	571	455	436			228
Chromium	<0.01			<0.01	<0.01			0.01	<0.01	<0.01	<0.01			<0.01
Copper	<0.03			<0.03	<0.03			<0.03	<0.03	<0.03	<0.03			<0.03
Iron	<0.1			<0.1	<0.1			0.4	0.8	1.4	1.2			<0.1
Lead	<0.003			<0.003	<0.003			<0.003	<0.003	<0.003	<0.003			<0.003
Magnesium	84			128	118			152	229	185	182			97
Potassium	95			36	25			14	17	22	28			72
Selenium	0.2			0.03	0.05			0.2	0.2	0.4	0.4			0.4
Sodium	818			1409	1409			857	1417	1723	1962			904
Zinc	0.02			0.021 J	0.02			0.03 J	0.02	0.02	0.02			0.02 J
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	512			395	425			293	290	366	439			400
Chloride	421			914	827			1345	1227	891	941			434
Fluoride	4.8			1.5	1.6			1.7	1.6	1.7	1.7			3
Nitrate + Nitrite	8.8			11	17			90	90	154	164			9.8
pH	7.6			7.9	7.9			7.5	7.5	7.9	7.2			7.7
Specific Conductivity	4660			7320	7010			9140	8560	9290	9080			5050
Sulfate	1555			2632	2332			3055	3090	3189	3446			1760
Total Alkalinity				324				240		300				328
Total Dissolved Solids	3629			6029	5909			8015	7339	8194	7684			3954
Total Suspended Solids	6			1.9	7.5			8.9	27	562	38			3.4
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene														
Acenaphthene														
Acenaphthylene														
Anthracene														
Benzo(a)anthracene														
Benzo(a)pyrene														
Benzo(b)fluoranthene														
Benzo(g,h,i)perylene														
Benzo(k)fluoranthene														
Chrysene														
Dibenz(a,h)anthracene														
Fluoranthene														
Fluorene														
Indeno(1,2,3-cd)pyrene														
Naphthalene														
Phenanthrene														
Pyrene														
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	<1	<1	<1			<1	<1	<1	<1			<1	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1997

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Location / Sampling Date	EP-62 11/5/1997	EP-63 2/8/1997	EP-63 5/13/1997	EP-63 8/9/1997	EP-63 11/5/1997	EP-64 2/8/1997	EP-64 5/13/1997	EP-64 8/9/1997	EP-64 11/5/1997	EP-65 8/16/1997	EP-65 11/14/1997	EP-66 2/8/1997	EP-66 5/13/1997	EP-66 8/8/1997
Dissolved Metals (mg/L)														
Arsenic	1.2			0.02	0.02			0.03	0.05	<0.005	0.01			13
Cadmium	<0.005			<0.005	<0.005			<0.005	<0.005	<0.005	<0.005			<0.005
Calcium	216			293	260			360	482	392	373			666
Chromium	<0.01			<0.01	<0.01			<0.01	<0.01	<0.01	<0.01			0.01
Copper	<0.03			<0.03	<0.03			<0.03	<0.03	<0.03	<0.03			<0.03
Iron	<0.1			<0.1	0.1			<0.1	0.1	<0.1	<0.1			<0.1
Lead	<0.003			<0.003	<0.003			<0.003	<0.003	<0.003	<0.003			<0.003
Magnesium	96			153	152			115	155	144	143			161
Potassium	64			33	35			25	23	24	30			52
Selenium	0.4			0.2	0.2			0.5	0.7	0.3	0.3			0.3
Sodium	906			1638	1747			1713	2601	1380	1480			1505
Zinc	0.02			0.02 J	0.03			0.02 J	0.03	<0.02	<0.02			0.05 J
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	400			476	479			325	389	498	555			559
Chloride	497			1045	1018			744	916	643	676			697
Fluoride	2.9			2.3	2.3			1.9	2	2.1	1.9			3.2
Nitrate + Nitrite	7.3			25	21			77	114	30	66			40
pH	7.7			7.8	7.8			7.8	7.8	7.7	7.6			7.5
Specific Conductivity	5050			8100	8260			8590	11000	7420	7380			8390
Sulfate	1919			2643	2779			3359	4379	2651	2699			3474
Total Alkalinity				390				266		408				458
Total Dissolved Solids	3897			6442	6381			7433	9787	6449	6235			7776
Total Suspended Solids	8.2			52	32			84	65	21	25			78
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene														
Acenaphthene														
Acenaphthylene														
Anthracene														
Benzo(a)anthracene														
Benzo(a)pyrene														
Benzo(b)fluoranthene														
Benzo(g,h,i)perylene														
Benzo(k)fluoranthene														
Chrysene														
Dibenz(a,h)anthracene														
Fluoranthene														
Fluorene														
Indeno(1,2,3-cd)pyrene														
Naphthalene														
Phenanthrene														
Pyrene														
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	<1	<1	<1	<1	<1	<1	<1	<1	<1			<1	<1	<1

Table I-2
Groundwater Sampling Results (ASARCO): 1997

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Location / Sampling Date	EP-66 11/5/1997	EP-67 8/12/1997	EP-67 11/7/1997	EP-68 8/14/1997	EP-68 11/11/1997	EP-7 2/6/1997	EP-7 5/13/1997	EP-7 8/6/1997	EP-7 11/4/1997	EP-70 8/26/1997	EP-70 11/7/1997	EP-71 8/12/1997	EP-71 11/7/1997	EP-72 8/12/1997
Dissolved Metals (mg/L)														
Arsenic	11	0.02	0.04	<0.005	<0.005			0.06	0.08	2	1.7	0.2	0.2	0.5
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005	<0.005	0.01	0.01	<0.005	<0.005	0.2
Calcium	618	560	456	337	314			103	96	274	298	388	380	366
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.2	<0.1	<0.1	<0.1	<0.1			1	1.2	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	143	156	144	141	132			34	32	149	165	180	185	167
Potassium	48	19	15	18	12			12	5.9	31	25	21	18	25
Selenium	0.3	0.1	0.2	0.3	0.3			<0.005	<0.005	0.2	0.2	0.3	0.3	0.5
Sodium	1502	488	472	784	841			490	484	1238	1236	1046	1091	997
Zinc	0.03	0.02	0.04	0.02	0.02			<0.02	<0.02	0.2	0.2	<0.02	0.03	0.5
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	498	251	256	220	223			390	390	307	300	303	298	290
Chloride	699	415	377	717	751			320	311	615	624	517	573	553
Fluoride	3.2	0.8	0.8	0.8	0.7			1.7	1.8	1.3	1.2	1	0.9	1.4
Nitrate + Nitrite	44	18	17	24	24			<0.05	<0.05	62	62	89	99	58
pH	7.5	7.6	7.4	7.7	7.3			7.8	7.9	7.9	7.5	7.5	7.5	7.8
Specific Conductivity	7920	4400	4460	5430	5440			2810	2710	6970	6740	6480	6470	6220
Sulfate	3435	1923	2228	1740	1725			672	687	2496	2586	2720	2564	2767
Total Alkalinity		206		180				320		252		248		238
Total Dissolved Solids	7183	4098	4028	4246	4350			1942	1974	5856	5436	5636	5567	5403
Total Suspended Solids	19	4	12	19	38			12	15	6.5 J	6.4	4.9	10	6.4
Volatile Organic Compounds (mg/L)														
Benzene	<0.001					<0.001	<0.001	<0.001	<0.001					
Ethylbenzene	<0.001					<0.001	<0.001	<0.001	<0.001					
Toluene	<0.001					<0.001	<0.001	<0.001	<0.001					
Total Xylenes	<0.001					<0.001	<0.001	<0.001	<0.001					
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene														
Acenaphthene														
Acenaphthylene														
Anthracene														
Benzo(a)anthracene														
Benzo(a)pyrene														
Benzo(b)fluoranthene														
Benzo(g,h,i)perylene														
Benzo(k)fluoranthene														
Chrysene														
Dibenz(a,h)anthracene														
Fluoranthene														
Fluorene														
Indeno(1,2,3-cd)pyrene														
Naphthalene														
Phenanthrene														
Pyrene														
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	<1					<1	<1	<1	<1					

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Groundwater Sampling Results (ASARCO): 1997

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Location / Sampling Date	EP-72 11/7/1997	EP-73 8/12/1997	EP-73 11/13/1997	EP-74 8/13/1997	EP-75 8/12/1997	EP-75 11/13/1997	EP-76 8/12/1997	EP-76 11/11/1997	EP-77 8/12/1997	EP-77 11/13/1997	EP-78 8/13/1997	EP-78 11/18/1997	EP-79 8/13/1997	EP-79 11/18/1997
Dissolved Metals (mg/L)														
Arsenic	0.5	0.03	0.03	0.1	12	21	0.5	0.5	5.6	6	6.3	5.6	0.01	<0.01
Cadmium	0.2	<0.005	<0.005	<0.005	0.04	0.02	<0.005	<0.005	0.01	0.01	<0.005	<0.005	<0.005	<0.005
Calcium	347	287	265	87	438	406	195	157	240	223	46	<43	59	<58
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01
Copper	<0.03	<0.03	<0.03	<0.03	0.05	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	0.003	0.003	0.007	0.004	0.006	0.005	<0.003	<0.003	<0.003	<0.003
Magnesium	162	117	113	36	463	407	105	88	58	53	26	24	71	71
Potassium	22	388	382	7.6	586	760	72	58	35	36	46	46	9.3	<12
Selenium	0.4	1.1	1.1	0.4	5.3	4	0.1	0.2	0.03	0.02	0.4	0.2	0.2	0.2
Sodium	995	1048	1087	448	4680	5246	937	891	1034	1030	492	<380	1018	1153
Zinc	0.5	0.03	0.03	0.02	0.2	0.2	0.2	0.08	0.03	0.02	0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	287	293	287	293	798	742	483	486	364	309	344	295	473	454
Chloride	608	485	441	253	352	258	492	479	616	608	179	179	437	<432
Fluoride	1.4	2.8	2.6	0.9	1.8	1.5	2.1	2.1	2.6	2.4	4.9	4.8	4.1	3.7
Nitrate + Nitrite	59	25	23 J	5.9	191	193 J	5.2	4.6	0.7	13 J	7.6	9.2	9.5	10
pH	7.4	7.9	7.4	8	7.4	7.2	8	7.5	8.4	7.6	8	7.9	8	8.2
Specific Conductivity	6040	6760	6520	2550	19620	18340	5110	4670	5400	5350	2600	<2310	4890	4900
Sulfate	2522	3223	2584	710	13167	10061	1889	1498	2129	1793	807	674	1596	1802
Total Alkalinity		240		240	654		396		308		282		388	
Total Dissolved Solids	5075	5763	5329	1771	20923	18239	3967	3497	4175	3956	1773	<1437	3643	3560
Total Suspended Solids	11	2	12 J	31	116	41 J	25	5.6	752	142 J	9.8	<5.9 UJ	20	89
Volatile Organic Compounds (mg/L)														
Benzene														
Ethylbenzene														
Toluene														
Total Xylenes														
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene														
Acenaphthene														
Acenaphthylene														
Anthracene														
Benzo(a)anthracene														
Benzo(a)pyrene														
Benzo(b)fluoranthene														
Benzo(g,h,i)perylene														
Benzo(k)fluoranthene														
Chrysene														
Dibenz(a,h)anthracene														
Fluoranthene														
Fluorene														
Indeno(1,2,3-cd)pyrene														
Naphthalene														
Phenanthrene														
Pyrene														
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons														

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Groundwater Sampling Results (ASARCO): 1997

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Location / Sampling Date	EP-80 8/13/1997	EP-80 11/17/1997	EP-81 8/13/1997	EP-81 11/17/1997	EP-82 8/13/1997	EP-82 11/18/1997	EP-83 8/13/1997	EP-83 11/18/1997	EP-84 8/13/1997	EP-84 11/18/1997	EP-85 8/13/1997	EP-85 11/17/1997	EP-86 8/13/1997	EP-86 11/18/1997
Dissolved Metals (mg/L)														
Arsenic	0.02	0.02	0.2	0.2	0.02	<0.01	0.01	<0.005	0.1	<0.04	3.1	3.2	0.01	<0.007
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.007	<0.005	<0.005	<0.005	<0.005
Calcium	190	226	176	150	151	<91	86	<76	148	201	106	67	46	<42
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.009	0.01	<0.003	<0.003	<0.003	<0.003
Magnesium	87	85	86	79	74	48	73	68	62	96	49	32	33	32
Potassium	20	19	18	14	21	<17	12	<13	8.5	<13	32	26	11	<10
Selenium	0.02	0.04	0.2	0.2	0.3	0.2	0.05	0.04	0.04	0.03	0.2	0.2	0.04	0.04
Sodium	934	1052	327	311	693	<613	748	799	224	<264	495	401	493	<519
Zinc	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	0.02	<0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	556	542	439	534	442	508	376	415	273	284	383	361	356	415
Chloride	432	356	164	102	422	<361	359	<399	184	<326	193	143	285	<291
Fluoride	1.3	1.3	1.4	1.2	2.5	<2.7	2.9	<2.8	0.8	<0.8	3.6	3.8	2.8	<2.7
Nitrate + Nitrite	1.4	5	6.2	8.2	8.9	6.4	8.2	6.5	8.4	7.2	7.3	5.8	6.6	5.9
pH	7.7	7.9	7.7	7.8	7.7	8	8	8.2	7.9	8.1	8	8	8	8.3
Specific Conductivity	5040	5100	2550	2390	3980	<3250	3940	<3940	1958	<2650	2900	2300	2630	<2650
Sulfate	1889	2004	961	748	1310	865	1382	1192	524	826	1034	680	658	664
Total Alkalinity	456		360		362		308		224		314		292	
Total Dissolved Solids	4036	4029	2045	1809	2948	2274	2910	2741	1525	1979	2126	1622	1780	1758
Total Suspended Solids	382	127	233	11	7.3	36 J	6	112	18	31 J	4.4	1.1	78	182
Volatile Organic Compounds (mg/L)														
Benzene														
Ethylbenzene														
Toluene														
Total Xylenes														
Semivolatile Organic Compounds (mg/L)														
2-Methylnaphthalene														
Acenaphthene														
Acenaphthylene														
Anthracene														
Benzo(a)anthracene														
Benzo(a)pyrene														
Benzo(b)fluoranthene														
Benzo(g,h,i)perylene														
Benzo(k)fluoranthene														
Chrysene														
Dibenz(a,h)anthracene														
Fluoranthene														
Fluorene														
Indeno(1,2,3-cd)pyrene														
Naphthalene														
Phenanthrene														
Pyrene														
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons														

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Location / Sampling Date	EP-87 9/15/1997	EP-87 11/18/1997	EP-88 8/12/1997	EP-88 11/11/1997	EP-89 8/12/1997	EP-89 11/13/1997	EP-9 2/6/1997	EP-9 8/4/1997	EP-90 12/12/1997
Dissolved Metals (mg/L)									
Arsenic	0.05	<0.03	0.02	0.02	0.01	0.005			0.2
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005
Calcium	72	<66	68	57	175	157			102
Chromium	0.02	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01
Copper	0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1
Lead	0.006	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003
Magnesium	17	24	46	39	68	62			49
Potassium	5	<2	8.8	4.9	21	20			11
Selenium	<0.005	<0.005	0.09	0.03	0.03	0.02			0.7
Sodium	18	<16	1145	1323	379	350			588
Zinc	0.03	<0.02	0.03	0.03	0.02	<0.02			0.2
Water Quality Parameters (mg/L)									
Bicarbonate Alkalinity	283	289	527	540	273	281			398
Chloride	7.6	<12	483	471	308	356			281
Fluoride	0.5	<0.6	2.3	2.2	0.8	0.7			0.6
Nitrate + Nitrite	1.5	2.2	1.7	1	8.3	9 J			10
pH	7.5	8.2	8.4	7.9	7.9	7.4			8.1
Specific Conductivity	546	<560	5150	5240	2780	2770			2920
Sulfate	41	39	1790	1787	859	777			908
Total Alkalinity	232		442		224				
Total Dissolved Solids	365	<361	3679	3700	2085	1956			2138
Total Suspended Solids	20	<1	438	72	5.4	2.9 J			1058
Volatile Organic Compounds (mg/L)									
Benzene							<0.001	<0.001	
Ethylbenzene							<0.001	<0.001	
Toluene							<0.001	<0.001	
Total Xylenes							<0.001	<0.001	
Semivolatile Organic Compounds (mg/L)									
2-Methylnaphthalene							<0.01		
Acenaphthene							<0.01		
Acenaphthylene							<0.01		
Anthracene							<0.01		
Benzo(a)anthracene							<0.01		
Benzo(a)pyrene							<0.01		
Benzo(b)fluoranthene							<0.01		
Benzo(g,h,i)perylene							<0.01		
Benzo(k)fluoranthene							<0.01		
Chrysene							<0.01		
Dibenz(a,h)anthracene							<0.01		
Fluoranthene							<0.01		
Fluorene							<0.01		
Indeno(1,2,3-cd)pyrene							<0.01		
Naphthalene							<0.01		
Phenanthrene							<0.01		
Pyrene							<0.01		
Petroleum Hydrocarbons (mg/L)									
Total Petroleum Hydrocarbons							<1	<1	

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-1 2/3/1998	EP-12 2/3/1998	EP-12 5/20/1998	EP-12 8/27/1998	EP-12 11/16/1998	EP-13 2/17/1998	EP-13 5/7/1998	EP-13 8/6/1998	EP-13 11/4/1998	EP-14 2/17/1998
Dissolved Metals (mg/L)										
Arsenic		1.2	1	1.5	1.6	48	36	36	39 J	1.3
Cadmium		<0.005	<0.005	0.02	<0.005	0.7	0.7	0.7	0.8	<0.005
Calcium		437	321	428	334	348	363	359	359	383
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper		<0.03 UJ	0.03	<0.03	<0.03	0.03	0.03	<0.03	<0.03	<0.03
Iron		0.2 J	<0.1	0.9	0.8	<0.1 UJ	<0.1	<0.1	<0.1	0.2 J
Lead		<0.003	<0.004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.004
Magnesium		148	113	147	115	59	70	70	65	97
Potassium		21	27	12	18	102	97	83	85	51
Selenium		1.7	0.6	0.5	0.3	6.1	5.7	5.4	5.7	0.3
Sodium		1093	959	1172	1024	2992	2776	2468	2684	671
Zinc		<0.02 UJ	0.03	0.6	0.02	0.03 J	0.06	0.1	0.07	<0.02 UJ
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity		612	886	727	883	417	399	415	428	323
Chloride		666	524	597	547	634	759	814	812	350
Fluoride		0.9	1.1	1	1	1.4	1.5	1.4	1.4	1.5
Nitrate + Nitrite		32	18	33	16	103	82	83	73	17
pH (SU)		7.4	7.6	7.3	7.5	7.7	7.7	7.7	7.4	7.5
Specific Conductivity (umhos/cm)		6580	5280	6360	5580	11910	11440	11220	11420	4520
Sulfate		2603	1566	2229	1731	5364	5265	5322	4881	1707
Total Dissolved Solids		5491	3938	5362	4367	10540	9394	9829	9662	3852
Total Suspended Solids		8.3	88	174	329	23	3.4	7.3	147	2.6
Volatile Organic Compounds (mg/L)										
Benzene	<0.001					<0.001		<0.001	<0.001 UJ	<0.001
Ethylbenzene	<0.001					<0.001		<0.001	<0.001 UJ	<0.001
Toluene	<0.001					<0.001		<0.001	<0.001 UJ	<0.001
Total Xylenes	<0.001					<0.001		<0.001	<0.001 UJ	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1					<1		<5	<5 UJ	<1

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Location / Sampling Date	EP-14 5/7/1998	EP-14 8/6/1998	EP-14 11/4/1998	EP-15 2/17/1998	EP-15 5/7/1998	EP-15 8/10/1998	EP-15 11/5/1998	EP-17 2/3/1998	EP-20 2/3/1998	EP-20 5/6/1998
Dissolved Metals (mg/L)										
Arsenic	1.4	2.5	2.2 J	0.03	0.007	0.009	0.007 J		1	0.9
Cadmium	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005		0.05	0.04
Calcium	388	211	248	122	110	99	121		536	530
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.04 J	0.03
Iron	0.2	0.1	0.2	<0.1 UJ	<0.1	<0.1	<0.1		0.1 J	<0.1
Lead	0.004	<0.003	0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
Magnesium	97	54	62	43	39	34	41		320	315
Potassium	63	35	46	11	17	8.4	11		63	63
Selenium	0.2	0.08	0.2	0.2	0.2	0.2	0.1		0.4	0.3
Sodium	730	645	640	557	538	535	510		1919	2289
Zinc	0.05	0.03	0.02	<0.02 UJ	0.03	0.03	0.05		0.06 J	0.1
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	425	467	432	262	279	386	283		349	381
Chloride	344	222	294	329	311	272	308		890	780
Fluoride	1.6	2	2	0.8	0.9	0.9	0.9		1.9	2
Nitrate + Nitrite	13	4.3	10	17	18	13	18		201	183
pH (SU)	7.4	7.7	7.2	7.7	7.8	7.9	7.6		7.4	7.5
Specific Conductivity (umhos/cm)	4660	3590	4230	3100	2960	2810	3090		10800	10510
Sulfate	1989	1326	1542	885	875	715	869		5063	4635
Total Dissolved Solids	3754	2867	3253	2299	2018	1987	2150		9914	9230
Total Suspended Solids	1.1	3.9	32	86	124	282	110		74	50
Volatile Organic Compounds (mg/L)										
Benzene			<0.001 UJ	<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001
Ethylbenzene			<0.001 UJ	<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001
Toluene			<0.001 UJ	<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001
Total Xylenes			<0.001 UJ	<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons			<5 UJ	<1	<1	<5	<5 UJ	<1	<1	<1

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Location / Sampling Date	EP-20 8/6/1998	EP-20 11/4/1998	EP-21 2/18/1998	EP-21 5/21/1998	EP-21 8/24/1998	EP-21 11/16/1998	EP-22 2/18/1998	EP-22 6/10/1998	EP-22 8/24/1998	EP-22 11/16/1998
Dissolved Metals (mg/L)										
Arsenic	0.9	0.9 J	0.06 J	0.05	0.03	0.03	0.04 J	0.1	0.01	0.008
Cadmium	0.04	0.03	<0.005	<0.005	<0.005	<0.005	0.005	0.04	<0.005	<0.005
Calcium	520	493	65	56	52	60	253	289	101	54
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	0.03	<0.03	<0.03
Iron	<0.1	<0.1	0.2 J	0.3	0.3	0.2	<0.1 UJ	0.1	0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.004	<0.003	<0.003	0.02	0.04	<0.003	<0.003
Magnesium	292	274	51	44	46	46	155	148	81	78
Potassium	57	57	466	416	46	450	281	245	104	126
Selenium	0.4	0.4	0.1	0.02	0.02	0.02	0.6	0.5	0.07	0.05
Sodium	1664	1816	1108	959	1033	1022	1664	1477	1226	1292
Zinc	0.1	0.05	0.04 J	0.03	0.02	0.03	2.1	5.9	0.09	0.08
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	376	361	1935	2001	2064	2084	889	2684	1161	1742
Chloride	765	739	697	695	653	675	903	971	691	777
Fluoride	2	2.5	4.8	5.7	5.5	5.5	4.5	5.2	3.9	5.2
Nitrate + Nitrite	163	148	<0.05	<0.1	<0.05	<0.05	294	210	29	13
pH (SU)	7.6	7.1	8	7.8	8	8	7.6	7.7	7.8	8
Specific Conductivity (umhos/cm)	10210	10370	5980	5740	5680	5690	9900	9520	6840	7480
Sulfate	4783	4376	511	372	321	404	2219	2334	1571	1407
Total Dissolved Solids	9259	8932	3770	3237	3351	3497	6247	6203	3958	4045
Total Suspended Solids	129	90	27 J	269	47	34	45 J	30410	1162	441
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001 UJ								
Ethylbenzene	<0.001	<0.001 UJ								
Toluene	<0.001	<0.001 UJ								
Total Xylenes	<0.001	<0.001 UJ								
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5	<5 UJ								

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Location / Sampling Date	EP-23 2/4/1998	EP-23 5/11/1998	EP-23 8/12/1998	EP-23 11/5/1998	EP-24 2/18/1998	EP-24 5/21/1998	EP-24 8/24/1998	EP-24 11/16/1998	EP-25 2/18/1998	EP-25 5/21/1998
Dissolved Metals (mg/L)										
Arsenic	1.5	4.2	1.6	2.5 J	0.03 J	0.4	0.06	0.06	3.1	2.6
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	192	131	168	115	213	196	180	179	78	125
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03 UJ	<0.03	<0.03	<0.03	<0.03	0.1	<0.03	<0.03	<0.03	0.03
Iron	0.3 J	0.6	0.5	0.3 J	0.2 J	0.8	0.4	0.2	4 J	5.8
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.004	<0.003	<0.003	<0.003	<0.004
Magnesium	99	71	89	64	47	59	56	53	39	34
Potassium	76	70	62	52	29	34	28	29	53	166
Selenium	0.02	0.01	0.009	<0.005	<0.005	<0.005	<0.01	<0.005	0.04	0.08
Sodium	854	821	874	829	1033	980	1064	1051	1232	1098
Zinc	<0.02 UJ	0.05	0.02	<0.02	<0.02 UJ	0.3	<0.02	<0.02	<0.02 UJ	0.04
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	307	403	436	414	1200	1135	1288	1305	1588	1281
Chloride	493	420	429	484	1027	1024	970	1087	937	971
Fluoride	2.6	3.3	3.2 J	2.9	2.6	2.5	2.5	2.4	1.6	1.9
Nitrate + Nitrite	0.1	<0.05	0.06	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.1
pH (SU)	7.7	7.6	7.7	7.5	8.1	7.5	7.3	7.7	7.6	7.5
Specific Conductivity (umhos/cm)	6190	5500	5620	5790	5130	5380	5200	5390	5420	5760
Sulfate	2484	1902	1790	1925	305	577	264	298	147	572
Total Dissolved Solids	4183	3492	3423	3517	3259	3208	3172	3328	3218	3194
Total Suspended Solids	45	99	204	176	16 J	143	17	12	500 J	
Volatile Organic Compounds (mg/L)										
Benzene	0.03	0.04	0.04	0.04						
Ethylbenzene	0.009	0.01	0.02	0.02						
Toluene	<0.001	<0.001	<0.001	<0.001						
Total Xylenes	0.003	<0.001	0.001	0.001						
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	1.4	<1	<5	<5						

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Location / Sampling Date	EP-25 8/24/1998	EP-25 11/16/1998	EP-26 2/4/1998	EP-26 5/7/1998	EP-26 8/12/1998	EP-26 11/4/1998	EP-29 2/3/1998	EP-29 5/6/1998	EP-29 8/6/1998	EP-29 11/4/1998
Dissolved Metals (mg/L)										
Arsenic	5.1	2.4	0.6	0.5	0.4	0.3 J	0.3	0.2	0.3	0.3 J
Cadmium	<0.005	<0.005	0.2	0.2	0.3	0.4	<0.005	<0.005	<0.005	<0.005
Calcium	114	113	9.1	9.9	13	21	52	69	39	40
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.04 J	0.03	0.04	0.03	<0.03 UJ	<0.03	<0.03	<0.03
Iron	9.7	1.3	<0.1 UJ	<0.1	<0.1	<0.1	0.1 J	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	0.01	0.007	0.005	0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	48	35	2	1.5	2.1	3.1	20	26	21	23
Potassium	70	120	13	15	<5	7.3	27	31	19	22
Selenium	0.05	0.06	0.05	0.06	0.07	0.2	0.2	0.2	0.2	0.2
Sodium	1084	1134	26	14	18	44	677	654	681	646
Zinc	<0.02	<0.02	0.6	0.6	1.2	1.5	<0.02 UJ	0.02	0.03	<0.02
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	1354	1440	26	21	44	24	285	417	177	217
Chloride	853	852	12	5.3	10	19	317	315	339	372
Fluoride	1.4	1.9	0.8	0.6	0.6 J	0.8	2.7	2.6	2.9	2.8
Nitrate + Nitrite	<0.05	0.06	1.4	1.8	2.1	3.8	8.1	7.5	14	8.9
pH (SU)	7.2	7.5	7.4	7	7.4	6.4	8	8	8.7	8.5
Specific Conductivity (umhos/cm)	5420	5470	202	141	188	412	3100	3180	3070	3350
Sulfate	522	515	46	26	35	104	973	793	939	981
Total Dissolved Solids	3362	3422	145	102	130	282	2073	2159	2129	2185
Total Suspended Solids	3199	166	100	70	85	146	13	23	23	89
Volatile Organic Compounds (mg/L)										
Benzene			<0.001	<0.001	<0.001	<0.001 UJ	<0.001			
Ethylbenzene			<0.001	<0.001	0.002	<0.001 UJ	<0.001			
Toluene			<0.001	<0.001	<0.001	<0.001 UJ	<0.001			
Total Xylenes			<0.001	<0.001	<0.001	<0.001 UJ	<0.001			
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons			<1	<1	<5	<5 UJ	<1			

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Location / Sampling Date	EP-3 2/3/1998	EP-3 5/6/1998	EP-31 2/3/1998	EP-32 2/3/1998	EP-35 2/3/1998	EP-35 5/6/1998	EP-35 8/6/1998	EP-35 11/4/1998	EP-36 2/3/1998	EP-37 2/3/1998
Dissolved Metals (mg/L)										
Arsenic					0.4	0.6	0.3	0.6 J		
Cadmium					<0.005	<0.005	<0.005	<0.005		
Calcium					443	436	417	374		
Chromium					<0.01	<0.01	<0.01	<0.01		
Copper					<0.03 UJ	<0.03	<0.03	<0.03		
Iron					0.1 J	<0.1	<0.1	<0.1		
Lead					<0.003	<0.003	<0.003	<0.003		
Magnesium					170	152	163	125		
Potassium					19	29	22	21		
Selenium					4.1	2.5	2.5	1.5		
Sodium					1108	1192	1154	986		
Zinc					0.02 J	0.05	0.03	0.02		
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity					490	600	483	498		
Chloride					545	552	555	539		
Fluoride					1	1.1	1	1		
Nitrate + Nitrite					82	69	79	58		
pH (SU)					7.6	7.2	7.6	7.2		
Specific Conductivity (umhos/cm)					6760	6530	6300	6220		
Sulfate					2654	2357	2426	2357		
Total Dissolved Solids					5859	5225	5359	5032		
Total Suspended Solids					14	928	212	307		
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	1.3	9.8	<1	<1				<1	<1

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-38 2/3/1998	EP-39 2/3/1998	EP-4 2/4/1998	EP-4 5/5/1998	EP-4 8/5/1998	EP-40 2/3/1998	EP-41 2/3/1998	EP-42 2/3/1998	EP-42 5/6/1998	EP-42 8/6/1998
Dissolved Metals (mg/L)										
Arsenic			0.07	0.09	0.1					
Cadmium			<0.005	<0.005	<0.005					
Calcium			74	99	105					
Chromium			<0.01	<0.01	<0.01					
Copper			<0.03 UJ	<0.03	<0.03					
Iron			0.9	1.3	1.4					
Lead			<0.003	<0.003	<0.003					
Magnesium			20	27	27					
Potassium			12	21	12					
Selenium			0.005	<0.005	<0.005					
Sodium			257	270	303					
Zinc			<0.02 UJ	0.03	0.03					
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity			300	326	331					
Chloride			190	213	242					
Fluoride			1.1	1	1					
Nitrate + Nitrite			<0.05	0.09	<0.05					
pH (SU)			8	7.9	7.8					
Specific Conductivity (umhos/cm)			1595	1831	1970					
Sulfate			346	377	437					
Total Dissolved Solids			1076	1211	1345					
Total Suspended Solids			54	58	29					
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	<1			<1	<1	<1	<1	<5

Table I-2
Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-42 11/4/1998	EP-43 2/3/1998	EP-43 5/20/1998	EP-43 8/27/1998	EP-43 11/16/1998	EP-48 2/3/1998	EP-48 5/6/1998	EP-48 8/6/1998	EP-48 11/4/1998	EP-49 2/19/1998
Dissolved Metals (mg/L)										
Arsenic		1.2	0.7	0.8	7					464
Cadmium		<0.005	<0.005	<0.005	<0.005					43
Calcium		261	188	213	218					466
Chromium		<0.01	<0.01	<0.01	<0.01					0.05
Copper		<0.03 UJ	<0.03	<0.03	<0.03					0.09
Iron		0.2 J	1.6	0.2	9					2381
Lead		<0.003	<0.004	<0.003	<0.003					0.01
Magnesium		145	66	69	74					305
Potassium		58	44	32	36					207
Selenium		0.2	0.5	0.6	0.09					0.1
Sodium		1692	922	892	1118					614
Zinc		<0.02 UJ	<0.02	0.04	0.02					1900
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity		720	634	631	848					<1
Chloride		2405	785	615	1022					782
Fluoride		2.1	2.4	2	2.1					25
Nitrate + Nitrite		<0.05	8	13	0.1					<0.05
pH (SU)		7.5	7.5	7.3	7.2					4
Specific Conductivity (umhos/cm)		9590	4930	4720	5650					11440
Sulfate		1425	1073	1242	897					7869
Total Dissolved Solids		6434	3151	3357	3105					17442
Total Suspended Solids		35	14	40	753					430
Volatile Organic Compounds (mg/L)										
Benzene	<0.001 UJ					<0.001	<0.001	<0.001	<0.001 UJ	
Ethylbenzene	<0.001 UJ					<0.001	<0.001	<0.001	<0.001 UJ	
Toluene	<0.001 UJ					<0.001	<0.001	<0.001	<0.001 UJ	
Total Xylenes	<0.001 UJ					<0.001	<0.001	<0.001	<0.001 UJ	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5 UJ					<1	<1	<5	<5 UJ	

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Groundwater Sampling Results (ASARCO): 1998

Supplemental Remedial Investgation Report
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Location / Sampling Date	EP-49 5/21/1998	EP-49 8/27/1998	EP-49 11/16/1998	EP-5 2/4/1998	EP-5 5/5/1998	EP-5 8/5/1998	EP-5 11/3/1998	EP-51 2/12/1998	EP-51 5/11/1998	EP-51 8/12/1998
Dissolved Metals (mg/L)										
Arsenic	274	417	294	0.06	0.05	0.06	0.07 J	10	0.3	0.3
Cadmium	43	40	38	<0.005	<0.005	<0.005	<0.005	3.9	0.2	0.08
Calcium	468	515	470	78	85	76	77	690	653	628
Chromium	0.1	<0.05	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.04	<0.1	0.03	<0.03 UJ	<0.03	<0.03	0.03	5.6	0.4	0.3
Iron	1609	1833	1541	0.2 J	0.2	0.9	0.2	1.8	0.5	1
Lead	<0.004	0.05	<0.003	<0.003	0.003	<0.003	0.005	<0.003	<0.003	<0.003
Magnesium	291	270	258	33	34	30	30	412	471	413
Potassium	209	205	240	10	18	9.2	11	51	63	42
Selenium	0.2	<0.1	<0.1	0.005	<0.005	<0.005	<0.005	0.2	0.1	0.2
Sodium	930	1045	1549	671	629	594	577	1322	1501	1304
Zinc	1138	1499	975	0.02 J	0.06	0.03	0.03	61	2.2	1
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	<1	<1	<1	895	786	843	932	256	307	250
Chloride	689	822	750	361	336	353	328	2369	2627	1983
Fluoride	30	27	27	2.3	2.6	2.6	2.7	7.3	2.1	1.4 J
Nitrate + Nitrite	<0.1	<0.3	<0.05	0.1	0.06	<0.05	<0.05	133	146	146
pH (SU)	3.6	3.8	3.7	8.1	8	7.8	7.6	6.9	8.2	7.2
Specific Conductivity (umhos/cm)	10920	11000	10800	3070	2980	2900	3010	11070	11800	10080
Sulfate	8599	8448	8976	519	410	396	331	2550	2475	2160
Total Dissolved Solids	14614	16111	15347	2106	2116	1991	1909 J	8591	8933	8072
Total Suspended Solids	315	254	515	30	169	12	71	36 J	31	12
Volatile Organic Compounds (mg/L)										
Benzene				<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001
Ethylbenzene				<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001
Toluene				<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001
Total Xylenes				<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons				<1	<1	<5	<5 UJ	<1	<1	5

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-51 11/5/1998	EP-52 2/12/1998	EP-52 5/11/1998	EP-52 8/12/1998	EP-52 11/5/1998	EP-53 2/4/1998	EP-53 5/11/1998	EP-53 6/10/1998	EP-53 8/12/1998	EP-53 11/5/1998
Dissolved Metals (mg/L)										
Arsenic	0.08 J	1.6		1.6	1.7 J	63		63	62	56 J
Cadmium	0.06	0.7		0.6	0.6	1.4		1.3	1.4	1.6
Calcium	535	581		587	563	527		475	469	516
Chromium	0.01	<0.01		<0.01	<0.01	<0.01		<0.01	<0.01	<0.01
Copper	0.3	0.5		0.7	0.6	0.03 J		<0.03	<0.03	<0.03
Iron	2	0.6		<0.1	<0.1	<0.1 UJ		<0.1	<0.1	<0.1 UJ
Lead	<0.003	0.04		0.05	0.1	<0.003		<0.003	<0.003	<0.003
Magnesium	355	252		258	253	101		82	86	90
Potassium	43	23		33	26	124		118	120	108
Selenium	0.3	0.3		0.3	0.4	1.7		1.4	1.2	2
Sodium	1133	2276		1936	1931	1264		1365	1270	1333
Zinc	1	3.6		2.6	2.9	4.3		4.2	4.5	5.2
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	242	642		700	728	256		298	348	262
Chloride	1956	1468		1297	1308	515		520	463	444
Fluoride	1.2	6.3		6.4 J	6.4	5.9		6.3	5.9 J	5
Nitrate + Nitrite	136	130		113	99	97		125	156	183
pH (SU)	6.8	6.9		7	6.6	7		6.9	7.2	6.8
Specific Conductivity (umhos/cm)	9840	10870		10580	11100	7590		7470	7550	7980
Sulfate	1855	3538		3566	3593	3266		2825	2723	2915
Total Dissolved Solids	7364	9266		9183	9241	6775		6269	6182	6819
Total Suspended Solids	22	86 J		14	51	277		275	644	177
Volatile Organic Compounds (mg/L)										
Benzene	<0.001 UJ	<0.001	<0.001			<0.001	<0.001		<0.001	<0.002
Ethylbenzene	<0.001 UJ	<0.001	<0.001			<0.001	<0.001		<0.001	<0.001
Toluene	<0.001 UJ	<0.001	<0.001			<0.001	<0.001		<0.001	<0.001
Total Xylenes	<0.001 UJ	<0.001	<0.001			<0.001	<0.001		<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5 UJ	<1	<1			<1	<1		<5	<5

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-54 2/12/1998	EP-54 5/11/1998	EP-54 8/12/1998	EP-54 11/5/1998	EP-55 2/12/1998	EP-55 5/20/1998	EP-55 8/27/1998	EP-55 11/16/1998	EP-56 2/4/1998	EP-56 5/7/1998
Dissolved Metals (mg/L)										
Arsenic	27	50	59	50 J	57	56	61	40	2.2	1.9
Cadmium	2	1.5	0.8	0.7	0.04	0.01	0.008	<0.005	<0.005	<0.005
Calcium	414	469	515	448	522	501	523	523	256	253
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.2	0.1	0.06	0.09	<0.03	<0.03	<0.03	0.03	0.03 J	0.03
Iron	2.3	3.4	2.1	0.2 J	99	84	77	71	<0.1 UJ	<0.1
Lead	<0.003	0.01	0.04	0.007	<0.003	<0.004	<0.003	<0.003	<0.003	0.003
Magnesium	255	286	320	272	324	305	318	314	63	64
Potassium	342	378	320	300	229	217	192	201	29	34
Selenium	0.07	0.08	0.07	0.1	0.2	0.2	0.07	<0.1	0.05	0.06
Sodium	1788	1576	1881	1811	1794	1619	1100	1559	1043	1091
Zinc	41	32	17	12	71	43	35	27	0.03 J	0.04
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	566	543	776	842	878	671	732	854	344	303
Chloride	790	751	708	754	922	813	755	842	681	616
Fluoride	5.7	13	12 J	11	22	21	20	20	2.1	1.9
Nitrate + Nitrite	3.1	2.8	1.5	8.1	<0.05	<0.1	<0.05	<0.05	2.5	3.2
pH (SU)	7.4	7.1	7.2	6.7	6.9	6.7	6.4	6.5	7.8	7.6
Specific Conductivity (umhos/cm)	10100	9780	10200	10680	10510	10280	9980	9940	5520	5500
Sulfate	4900	4548	4762	4911	4863	4672	4465	4598	2125	1793
Total Dissolved Solids	8548	8370	8465	8932	9283	8056	8648	8458	4260	3956
Total Suspended Solids	43 J	33	25	127	2141 J	466	413	1820	448	358
Volatile Organic Compounds (mg/L)										
Benzene	0.005	0.007	0.01	0.004 J	0.02				<0.001	
Ethylbenzene	0.01	0.01	0.02	0.002 J	0.002				<0.001	
Toluene	<0.001	<0.001	<0.001	<0.001 UJ	<0.001				<0.001	
Total Xylenes	0.001	0.002	0.005	<0.001 UJ	<0.001				<0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<1	7	<5 UJ	29				<1	

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-56 5/11/1998	EP-56 8/12/1998	EP-56 11/4/1998	EP-57 2/18/1998	EP-57 5/18/1998	EP-57 8/24/1998	EP-57 11/16/1998	EP-58 2/18/1998	EP-58 5/18/1998	EP-58 8/24/1998
Dissolved Metals (mg/L)										
Arsenic		1.5	1 J	1 J	0.8	0.6	0.5	4.2	4.5	4.1
Cadmium		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium		269	246	89	71	152	41	497	489	486
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
Copper		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron		<0.1	<0.1	<0.1 UJ	<0.1	0.3	0.3	0.9 J	0.9	1.4
Lead		<0.003	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium		68	63	76	64	95	53	198	189	193
Potassium		26	28	18	18	15	20	263	252	247
Selenium		0.04	0.02	<0.005	<0.005	<0.01	<0.005	0.03	0.03	0.05
Sodium		1125	989	500	455	614	346	2510	2245	1700
Zinc		0.02	<0.02	0.02 J	<0.02	<0.02	<0.02	<0.02 UJ	0.02	0.03
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity		732	781	1176	1344	1293	1049	1288	1362	1349
Chloride		618	624	261	258	269	174	851	789	922
Fluoride		2 J	2	0.9	1	1	0.9	4.7	5	5
Nitrate + Nitrite		1.5	0.4	0.2	0.2	1.8	0.05	<0.05	<0.05	<0.05
pH (SU)		7.6	7.3	7.5	7.5	7.7	7.6	6.8	6.8	7
Specific Conductivity (umhos/cm)		5520	5600	2900	2610	3250	2070	11510	11500	11600
Sulfate		1804	1762	298	172	548	64	4006	4372	4867
Total Dissolved Solids		3870	4055	1978	1475	2176	1323	9349	8740	9442
Total Suspended Solids		4150	4339	42 J	1076	1172	72	72 J	172	17
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001 UJ							
Ethylbenzene	<0.001	<0.001	<0.001 UJ							
Toluene	<0.001	<0.001	<0.001 UJ							
Total Xylenes	<0.001	<0.001	<0.001 UJ							
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<5	<5 UJ							

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Location / Sampling Date	EP-58 11/16/1998	EP-59 2/5/1998	EP-59 5/8/1998	EP-59 8/10/1998	EP-59 11/9/1998	EP-6 2/4/1998	EP-6 5/5/1998	EP-6 8/5/1998	EP-6 11/3/1998	EP-60 2/5/1998
Dissolved Metals (mg/L)										
Arsenic	3.7	3.4	3.1	3.2	2.9	0.02	0.02	0.02	0.03 J	0.009
Cadmium	<0.005	<0.005	0.005	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	520	168	181	193	189	246	225	328	364	584
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03 UJ	<0.03	<0.03	<0.03	0.03
Iron	1	0.1 J	<0.1	<0.1	<0.1 UJ	<0.1 UJ	<0.1	<0.1	<0.1	0.4 J
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	210	83	90	92	93	76	72	100	110	237
Potassium	299	95	100	107	91	25	28	31	30	14
Selenium	0.04	0.2	0.3	0.3	0.3	0.009	0.01	0.03	0.04	0.3
Sodium	2085	807	868	920	914	1167	1215	1414	1348	1366
Zinc	<0.02	<0.02	0.04	0.05	0.2	<0.02 UJ	0.04	0.05	0.02	0.03
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	1376	503	444	427	448	581	468	464	454	317
Chloride	922	450	369	410	441	954	760	897	860	1278
Fluoride	5	4.8	4.8	4.6	4.7	1.3	1.5	1.4	1.5	1.4
Nitrate + Nitrite	<0.05	10	13	12	12	<0.05	0.4	3.2	4.3	109
pH (SU)	7.2	7.3	7.7	7.4	7.4	8	8	8	7.7	7.3
Specific Conductivity (umhos/cm)	11580	4640	4800	4850	4980	6060	5810	6720	7120	8780
Sulfate	4912	1551	1586	1643	1762	1852	1664	2258	2205	3000
Total Dissolved Solids	9281	3594	3743	3678	3831	4491	4263	5241	5710	7495
Total Suspended Solids	81	2.7	1.7	<1	5	10	7.2	4.4	7.5	6.3
Volatile Organic Compounds (mg/L)										
Benzene		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
Ethylbenzene		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
Toluene		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
Total Xylenes		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons		<1	<1	<5	<5	<1	<1			<1

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-60 5/8/1998	EP-60 8/10/1998	EP-60 11/9/1998	EP-61 2/18/1998	EP-61 5/18/1998	EP-61 8/24/1998	EP-61 11/16/1998	EP-62 2/5/1998	EP-62 5/8/1998	EP-62 8/10/1998
Dissolved Metals (mg/L)										
Arsenic	0.008	0.007	0.009	0.03 J	0.008	0.01	0.008	0.8	1	1.2
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	575	561	506	477	454	460	455	253	199	204
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03
Iron	<0.1	0.1	<0.1 UJ	0.4 J	0.2	0.1	0.1	0.1 J	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	231	215	191	201	189	193	192	114	85	84
Potassium	27	18	17	23	24	12	23	69	63	66
Selenium	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.4	0.4	0.4
Sodium	1370	1427	1403	2082	1684	1300	1496	935	882	881
Zinc	0.05	0.06	0.2	<0.02 UJ	0.02	0.02	0.02	0.02	0.04	0.07
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	305	298	288	388	434	447	415	393	393	418
Chloride	1254	1171	1149	857	836	732	747	473	405	405
Fluoride	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.7	3	3
Nitrate + Nitrite	76	57	40	207	156	117	131	17	11	8.6
pH (SU)	7.6	7.7	7.7	7.3	7.3	7.5	7.6	7.4	7.7	7.7
Specific Conductivity (umhos/cm)	8880	8700	8480	9200	8860	8620	8530	5460	4820	4840
Sulfate	3180	2931	3090	3213	3315	3524	3377	2183	1785	1708
Total Dissolved Solids	4857	6865	6907	8017	7116	7198	7453	4317	3725	3665
Total Suspended Solids	7	1.2	6.7	104 J	27	99	66	20	5.1	<1
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001					<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001					<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001					<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001					<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<1	<5	<5					<1	<1	<5

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Location / Sampling Date	EP-62 11/9/1998	EP-63 2/5/1998	EP-63 5/8/1998	EP-63 8/10/1998	EP-63 11/9/1998	EP-64 2/5/1998	EP-64 5/8/1998	EP-64 8/10/1998	EP-64 11/9/1998	EP-65 2/18/1998
Dissolved Metals (mg/L)										
Arsenic	1	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.05	0.009 J
Cadmium	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	0.01	<0.005
Calcium	191	266	273	251	237	399	378	383	376	409
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.03	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03
Iron	<0.1 UJ	0.2 J	<0.1	<0.1	<0.1 UJ	0.1 J	<0.1	<0.1	<0.1 UJ	<0.1 UJ
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	79	157	166	151	146	141	131	124	115	165
Potassium	52	39	43	39	35	26	34	25	23	24
Selenium	0.4	0.2	0.2	0.2	0.2	0.7	0.6	0.6	0.6	0.2
Sodium	858	1579	1604	1740	1695	2200	2185	2135	2055	1661
Zinc	0.1	0.03	0.05	0.07	0.1	0.02	0.05	0.07	0.3	<0.02 UJ
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	411	532	501	551	593	256	261	322	292	521
Chloride	432	1067	973	928	1038	869	755	687	733	690
Fluoride	2.8	2.1	2.2	2.2	2.2	1.9	1.9	1.8	1.9	2
Nitrate + Nitrite	6.4	18	14	13	6.4	136	120	71	66	58
pH (SU)	7.5	7.4	7.6	7.7	7.6	7.9	8	7.9	7.7	7.5
Specific Conductivity (umhos/cm)	4680	8210	8390	8470	8480	10420	10000	9540	9490	7500
Sulfate	1646	2893	2941	2759	2941	4564	4063	3826	3966	2718
Total Dissolved Solids	3500	6412	6532	6466	6424	9250	8604	8077	7863	6383
Total Suspended Solids	1.9	102	18	6.1	4.6	22	6.3	6.7	4.2	8.4 J
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5	<1	<1	<5	<5	<1	<1	<5	<5	

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-65 5/18/1998	EP-65 8/24/1998	EP-65 11/16/1998	EP-66 2/5/1998	EP-66 5/8/1998	EP-66 8/10/1998	EP-66 11/9/1998	EP-67 2/11/1998	EP-67 5/12/1998	EP-67 8/13/1998
Dissolved Metals (mg/L)										
Arsenic	0.007	0.006	0.007	9.7	10	11	8.6	0.02 J	0.02	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.08	<0.005	<0.005	<0.005
Calcium	328	383	368	541	554	591	508	477	457	458
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	0.07	<0.03	<0.03	<0.03
Iron	<0.1	0.3	0.1	0.1 J	<0.1	<0.1	<0.1 UJ	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	139	152	150	122	130	140	116	144	134	135
Potassium	28	22	25	45	58	58	43	16	15	23
Selenium	0.2	0.1	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.2
Sodium	1349	1000	1270	1194	1429	1551	1326	511	473	557
Zinc	<0.02	<0.02	<0.02	0.02	0.06	0.09	0.6	0.02	0.03	0.03
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	515	610	639	443	478	536	470	251	244	261
Chloride	689	651	640	625	595	606	602	384	364	362
Fluoride	2.1	1.9	1.9	3	3.3	3.4	3.2	0.7	0.8	0.7 J
Nitrate + Nitrite	35	33	31	44	45	40	31	19	17	15
pH (SU)	7.3	7.5	7.6	7.6	7.7	7.5	7.4	7.3	7.2	7.6
Specific Conductivity (umhos/cm)	7440	7330	7280	7220	7690	8130	7440	4470	4440	4360
Sulfate	2892	2837	2778	3098	3456	3523	3237	1896	1900	2017
Total Dissolved Solids	5726	5862	6004	6329	6881	7017	6344	4077	3665	3985
Total Suspended Solids	132	15	13	5.6	16	1.7	4	2.9 J	3.6	1.5
Volatile Organic Compounds (mg/L)										
Benzene				<0.001	<0.001	<0.001	<0.001			
Ethylbenzene				<0.001	<0.001	<0.001	<0.001			
Toluene				<0.001	<0.001	<0.001	<0.001			
Total Xylenes				<0.001	<0.001	<0.001	<0.001			
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons				<1	<1	<5	<5			

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-67 11/10/1998	EP-68 2/11/1998	EP-68 5/13/1998	EP-68 8/13/1998	EP-68 11/9/1998	EP-7 2/4/1998	EP-7 5/5/1998	EP-7 8/5/1998	EP-7 11/3/1998	EP-70 2/11/1998
Dissolved Metals (mg/L)										
Arsenic	0.02	<0.005 UJ	0.009	0.007	0.009	0.08	0.06	0.07	0.05 J	1.4
Cadmium	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.01
Calcium	465	271	299	236	207	119	127	106	83	304
Chromium	<0.01	0.02	0.01	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03 UJ	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1 UJ	1.7	1.5	1.4	0.7	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	140	114	129	99	88	38	41	34	27	159
Potassium	15	17	16	16	14	9.6	14	9.5	9	26
Selenium	0.1	0.3	0.3	0.3	0.3	<0.005	<0.005	<0.005	<0.005	0.2
Sodium	497	765	815	672	630	502	512	506	446	1230
Zinc	0.08	<0.02	0.02	0.03	0.07	<0.02 UJ	0.03	0.02	<0.02	0.2
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	255	244	220	259	248	361	322	296	289	290
Chloride	364	638	715	483	530	344	348	365	322	608
Fluoride	0.8	0.7	0.8	0.6 J	0.7	1.3	1.5	1.7	1.9	1.1
Nitrate + Nitrite	16	33	23	41	27	0.08	<0.05	<0.05	<0.05	78
pH (SU)	7.4	7.7	7.4	7.8	7.9	7.9	7.8	7.8	7.6	7.4
Specific Conductivity (umhos/cm)	4370	4980	5690	4260	4480	2810	2890	2800	2660	6600
Sulfate	1823	1610	1845	1312	1454	814	687	767	567	2464
Total Dissolved Solids	3806	3957	4125	3252	3329	1978	1930	1938	1790	5373
Total Suspended Solids	7	89 J	46	25	51	14	15	8.9	18	<1 UJ
Volatile Organic Compounds (mg/L)										
Benzene						<0.001	<0.001	<0.001	<0.001 UJ	
Ethylbenzene						<0.001	<0.001	<0.001	<0.001 UJ	
Toluene						<0.001	<0.001	<0.001	<0.001 UJ	
Total Xylenes						<0.001	<0.001	<0.001	<0.001 UJ	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons						<1	<1	<5	<5 UJ	

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-70 5/12/1998	EP-70 8/13/1998	EP-70 11/10/1998	EP-71 2/11/1998	EP-71 5/12/1998	EP-71 8/13/1998	EP-71 11/10/1998	EP-72 2/11/1998	EP-72 5/13/1998	EP-72 8/13/1998
Dissolved Metals (mg/L)										
Arsenic	1.2	1.2	1	0.1	0.1	0.1	0.1	0.5	0.5	0.5
Cadmium	0.01	0.01	0.02	<0.005	<0.005	<0.005	0.006	0.2	0.2	0.2
Calcium	277	301	314	379	362	392	348	349	327	361
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	0.01	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	143	153	157	180	169	179	159	158	150	165
Potassium	20	30	24	20	18	22	19	25	21	29
Selenium	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.4	0.4	0.4
Sodium	1097	1127	1182	1168	1058	1256	952	1016	985	1040
Zinc	0.2	0.2	0.2	0.03	0.02	0.03	0.08	0.5	0.5	0.5
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	283	295	285	305	300	307	285	283	282	293
Chloride	565	516	570	574	476	498	478	574	569	552
Fluoride	1.2	1.1 J	1.1	0.8	0.9	0.9 J	0.9	1.3	1.4	1.3 J
Nitrate + Nitrite	46	42	52	114	46	53	79	53	44	49
pH (SU)	7.4	7.6	7.4	7.5	7.3	7.5	7.3	7.4	7.5	7.5
Specific Conductivity (umhos/cm)	6290	6150	6320	6770	6440	6290	5750	6030	6030	6050
Sulfate	2356	2374	2674	2575	2329	2424	2506	2209	2296	2303
Total Dissolved Solids	4672	5053	5136	5828	5049	5538	4741	4975	4600	5094
Total Suspended Solids	<1	6.3	2.1	1.3 J	3.2	<1	6	16 J	2.9	4.5
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-72 11/10/1998	EP-73 2/12/1998	EP-73 5/11/1998	EP-73 8/17/1998	EP-73 11/5/1998	EP-75 2/6/1998	EP-75 5/11/1998	EP-75 8/17/1998	EP-75 11/5/1998	EP-76 2/6/1998
Dissolved Metals (mg/L)										
Arsenic	0.5	0.02 J	0.1	0.03	0.04 J	18	17	18	18 J	0.5
Cadmium	0.2	<0.005	0.01	<0.005	0.01	0.02	0.04	<0.005	0.03	<0.005
Calcium	365	292	283	286	262	451	452	421	455	159
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	0.09	0.1	0.04	0.06	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1 UJ	0.3 J	<0.1	<0.1	0.1 J	0.1 J
Lead	<0.003	0.004	<0.003	<0.003	<0.003	<0.003	0.005	<0.003	0.007	0.005
Magnesium	165	125	123	121	112	476	501	401	477	90
Potassium	23	417	387	394	330	655	702	661	590	63
Selenium	0.4	1.2	1.3	1.2	1.1	4.5	5.1	3.7	5.4	0.1
Sodium	1086	1185	1148	1162	1126	4055	4377	4249	4342	882
Zinc	0.5	0.02	0.2	0.04	0.2	0.1	0.2	0.1	0.4	0.07
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	287	285	272	285	290	288	815	758	744	476
Chloride	588	466	422	469	466	710	377	203	302	422
Fluoride	1.4	2.4	2.8	2.7	2.6	1.5	2.3	1.6	1.8	1.9
Nitrate + Nitrite	68	24	22	21	15	178	148	176	111	4.7
pH (SU)	7.3	7.6	7.7	7.5	7.4	7.2	7.5	7.4	7.2	7.6
Specific Conductivity (umhos/cm)	6090	6850	6900	6700	6580	19240	20000	18700	19100	4800
Sulfate	2506	2861	3124	2754	2776	11195	12795	11607	12536	1527
Total Dissolved Solids	5018	5672	5747	5365	5375	19043	19297	17873	18662	3704
Total Suspended Solids	9	8.2 J	3.5	2.9	1.6	49	260	16	11	4
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-76 5/11/1998	EP-76 8/17/1998	EP-76 11/5/1998	EP-77 2/12/1998	EP-77 5/13/1998	EP-77 8/17/1998	EP-77 11/11/1998	EP-78 2/6/1998	EP-78 5/14/1998	EP-78 8/19/1998
Dissolved Metals (mg/L)										
Arsenic	0.4	0.4	2.3 J	5.7	5.4	6.1	6.8	5.9	5.6	5.4
Cadmium	<0.005	<0.005	0.01	0.02	0.02	0.02	0.02	<0.005	<0.005	<0.005
Calcium	168	182	151	228	220	254	249	61	78	68
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1 UJ	<0.1	<0.1	<0.1	<0.1	0.1 J	<0.1	<0.1
Lead	<0.003	0.008	0.02	0.005	0.005	0.005	<0.003	<0.003	<0.003	<0.003
Magnesium	97	102	86	51	48	58	56	33	40	37
Potassium	62	68	198	34	35	39	37	57	48	56
Selenium	0.1	0.2	0.5	0.007	0.02	0.02	0.01	0.2	0.2	0.3
Sodium	885	985	1084	1067	1054	1199	1192	483	669	658
Zinc	0.09	0.07	0.2	0.02	0.03	0.04	0.06	<0.02	<0.02	0.03
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	481	487	477	329	273	293	303	337	362	334
Chloride	426	503	466	636	608	684	641	252	325	331
Fluoride	2.1	1.9	2.4	2.4	2.7	2.6	2.8	4.2	3.9	3.7
Nitrate + Nitrite	5	5.7	3.8	0.4	0.4	0.4	0.7	11	11	9.4
pH (SU)	7.7	7.6	7.7	7.5	7.5	7.5	7.5	7.9	8	8.1
Specific Conductivity (umhos/cm)	5000	5070	5680	5330	5070	5800	5770	2940	3730	3660
Sulfate	1758	1779	2157	1808	1698	1996	2168	876	1078	1143
Total Dissolved Solids	3843	3737	4278	4046	3502	4255	4383	2004	2364	2561
Total Suspended Solids	1.6	5	4.2	249 J	190	18	412 J	10	18	1.8
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-78 11/11/1998	EP-79 2/6/1998	EP-79 5/14/1998	EP-79 8/19/1998	EP-79 11/11/1998	EP-80 2/5/1998	EP-80 5/13/1998	EP-80 8/19/1998	EP-80 11/11/1998	EP-81 2/5/1998
Dissolved Metals (mg/L)										
Arsenic	6.4	0.007	0.008	0.01	0.009	0.02	0.02	0.01	0.02	0.3
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	29	59	56	60	53	202	183	163	218	152
Chromium	<0.01	0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	0.1 J	<0.1	<0.1	<0.1	0.1 J	<0.1	<0.1	<0.1	0.1 J
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	16	74	69	74	62	81	80	79	91	76
Potassium	37	12	<5	8.9	9.5	14	15	20	18	17
Selenium	0.7	0.2	0.2	0.2	0.2	0.04	0.04	<0.005	0.02	0.2
Sodium	406	1103	1144	1183	1077	1000	1004	984	1045	331
Zinc	0.03	<0.02	<0.02	0.03	0.05	<0.02	0.02	0.03	0.08	0.03
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	366	466	610	454	470	520	499	547	525	527
Chloride	102	451	468	524	421	362	360	435	377	125
Fluoride	5.1	3.9	4.4	3.9	4.4	1.3	1.3	1.3	1.4	1.6
Nitrate + Nitrite	8.1	11	9.9	9.5	9.3	7.1	5.2	0.08	5.1	9.4
pH (SU)	8.1	7.9	7.8	8	7.8	7.4	7.6	8	7.5	7.5
Specific Conductivity (umhos/cm)	2220	4940	5080	5330	4710	5040	4960	5180	5130	2560
Sulfate	616	1748	1518	1766	1517	1954	1757	1880	2048	923
Total Dissolved Solids	1422	3770	3404	3921	3451	4032	3596	3949	4016	1967
Total Suspended Solids	46 J	37	718	<1	47 J	67	6.2	61	77 J	76
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-81 5/14/1998	EP-81 8/19/1998	EP-81 11/11/1998	EP-82 2/11/1998	EP-82 5/14/1998	EP-82 8/19/1998	EP-82 11/11/1998	EP-83 2/6/1998	EP-83 5/13/1998	EP-83 8/19/1998
Dissolved Metals (mg/L)										
Arsenic	0.2	0.3	0.09	0.006 J	0.01	0.009	0.01	0.006	0.01	0.006
Cadmium	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	140	163	174	167	170	158	152	73	71	69
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1 J	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	75	84	85	87	85	81	78	66	64	63
Potassium	12	12	11	24	20	27	25	12	<5	8.6
Selenium	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.04	0.05	0.04
Sodium	330	336	294	780	844	889	987	735	763	758
Zinc	0.02	0.04	0.1	0.02	0.02	0.03	0.04	<0.02	<0.02	0.03
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	537	477	550	394	381	390	412	361	359	376
Chloride	100	142	70	500	530	567	568	364	350	391
Fluoride	1.4	1.2	1.2	2.3	2.5	2.7	2.8	2.7	3.1	2.9
Nitrate + Nitrite	7.9	6.9	12	9.1	10	8.7	9.5	7.6	9.1	7.5
pH (SU)	7.4	7.6	7.3	7.6	7.6	7.7	7.4	7.8	7.8	8
Specific Conductivity (umhos/cm)	2540	2630	2430	4320	4740	4880	4880	3720	3840	3930
Sulfate	776	987	952	1311	1317	1604	1629	1161	1126	1316
Total Dissolved Solids	1850	2039	1862	3099	3297	3826	3614	2660	2558	2847
Total Suspended Solids	45	3.3	43 J	5.4 J	47	12	14 J	8.1	4	1
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-83 11/12/1998	EP-84 2/6/1998	EP-84 5/13/1998	EP-84 8/19/1998	EP-84 11/12/1998	EP-85 2/5/1998	EP-85 5/14/1998	EP-85 8/19/1998	EP-85 11/11/1998	EP-86 2/6/1998
Dissolved Metals (mg/L)										
Arsenic	0.008	0.04	0.03	0.03	0.03	2.9	2.8	2.7	3.1	<0.005
Cadmium	0.009	0.007	0.006	0.006	0.009	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	75	219	208	195	223	89	105	112	93	41
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	0.1 J	<0.1	<0.1	<0.1	0.1 J	<0.1	<0.1	<0.1	0.1 J
Lead	<0.003	0.02	0.006	0.03	0.02	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	63	104	99	88	101	43	51	55	45	33
Potassium	12	11	<5	7.2	8.5	30	28	29	28	12
Selenium	0.04	0.02	0.03	0.02	0.02	0.2	0.2	0.2	0.2	0.03
Sodium	756	390	335	268	329	431	496	550	502	497
Zinc	0.1	0.05	0.05	0.05	0.1	<0.02	0.03	0.02	0.03	<0.02
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	356	295	298	295	306	356	344	364	379	383
Chloride	353	371	346	330	346	179	233	265	170	287
Fluoride	2.7	0.6	0.7	0.7	0.7	3.4	3.5	3.3	3.5	2.5
Nitrate + Nitrite	7.9	11	10	6.6	9.7	7.5	7.1	6.8	7.6	5.8
pH (SU)	7.7	7.4	7.5	7.8	7.6	7.7	7.7	7.8	7.7	7.8
Specific Conductivity (umhos/cm)	3680	2990	3040	2780	2980	2600	2970	3240	2850	2640
Sulfate	1200	942	916	924	961	840	857	1158	1021	679
Total Dissolved Solids	2641	2293	2087	2183	2204	1882	2047	2432	2011	1812
Total Suspended Solids	17 J	4.4	8.1	<1	10 J	7.9	7.3	1.8	13 J	201
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-86 5/14/1998	EP-86 8/19/1998	EP-86 11/12/1998	EP-88 2/12/1998	EP-88 5/11/1998	EP-88 8/17/1998	EP-88 11/11/1998	EP-89 2/11/1998	EP-89 5/13/1998	EP-89 8/13/1998
Dissolved Metals (mg/L)										
Arsenic	0.008	0.005	0.006	0.02 J	0.03	0.03	0.02	<0.005 UJ	0.006	0.009
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005
Calcium	40	40	43	59	54	55	75	165	155	177
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	30	31	33	38	35	35	45	65	62	70
Potassium	<5	7.7	10	6.9	10	15	8.5	20	15	22
Selenium	0.04	0.04	0.03	0.01	0.03	0.02	0.06	0.01	0.03	0.03
Sodium	507	501	522	1344	1366	1359	1184	378	360	433
Zinc	0.02	0.03	0.04	0.03	0.03	0.04	0.2	<0.02	<0.02	0.04
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	346	351	414	339	590	614	501	266	264	278
Chloride	274	275	271	448	425	468	416	314	336	338
Fluoride	2.8	2.7	2.7	1.9	2.2	2.2	2.1	0.7	0.8	0.7 J
Nitrate + Nitrite	5.6	5.8	6.8	0.8	1	0.9	2.2	9.8	7.7	8.1
pH (SU)	7.9	8.1	7.9	7.8	8	7.7	7.6	7.7	7.7	7.9
Specific Conductivity (umhos/cm)	2640	2660	2640	5320	5370	5400	4940	2770	2780	2840
Sulfate	599	782	647	1669	1848	1711	1633	747	797	840
Total Dissolved Solids	1628	1823	1762	3946	4085	3832	3660	1995	1814	2144
Total Suspended Solids	61	4	183 J	60 J	205	32	16 J	5.8 J	2.2	2
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 1998

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Location / Sampling Date	EP-89 11/10/1998	EP-9 2/19/1998	EP-9 5/7/1998	EP-9 8/6/1998	EP-90 2/17/1998	EP-90 5/13/1998	EP-90 8/17/1998	EP-90 11/5/1998
Dissolved Metals (mg/L)								
Arsenic	<0.005		0.4		0.2	0.2	0.2	0.2 J
Cadmium	<0.005		<0.005		<0.005	<0.005	<0.005	<0.005
Calcium	170		55		117	120	75	88
Chromium	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01
Copper	<0.03		<0.03		<0.03	<0.03	<0.03	<0.03
Iron	<0.1		<0.1		<0.1 UJ	<0.1	<0.1	<0.1
Lead	<0.003		<0.003		<0.003	<0.003	<0.003	<0.003
Magnesium	67		23		58	55	36	43
Potassium	20		18		9	<5	8.1	7.8
Selenium	0.02		0.2		0.8	0.9	0.5	0.6
Sodium	387		534		510	461	421	419
Zinc	0.05		0.02		<0.02 UJ	0.03	0.04	0.05
Water Quality Parameters (mg/L)								
Bicarbonate Alkalinity	272		218		298	283	268	287
Chloride	336		265		316	315	234	244
Fluoride	0.8		2.3		0.5	0.6	0.8	0.7
Nitrate + Nitrite	8.2		12		14	12	8.3	11
pH (SU)	7.5		8.1		7.8	7.8	7.8	7.6
Specific Conductivity (umhos/cm)	2860		2650		2950	2900	2380	2660
Sulfate	860		729		832	828	637	732
Total Dissolved Solids	2067		1750		2132	1930	1654	1807
Total Suspended Solids	4		6.4		129	74	7.8	38
Volatile Organic Compounds (mg/L)								
Benzene		<0.001		<0.001				
Ethylbenzene		<0.001		<0.001				
Toluene		<0.001		<0.001				
Total Xylenes		<0.001		<0.001				
Petroleum Hydrocarbons (mg/L)								
Total Petroleum Hydrocarbons		<1		<5				

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Groundwater Sampling Results (ASARCO): 2003

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Location / Sampling Date	EP-100 5/7/2003	EP-100 8/8/2003	EP-101 2/12/2003	EP-101 4/29/2003	EP-101 8/7/2003	EP-102 4/29/2003	EP-102 8/7/2003	EP-103 4/30/2003	EP-103 8/7/2003	EP-104 4/30/2003
Total Metals (mg/L)										
Arsenic	0.008	0.05	5.8	5.3	7.7	0.4	0.47	<0.005	0.006	0.08
Cadmium	0.008	0.009	1.6	1.7	1.6	0.1	0.039	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.04	<0.025	0.05	0.05	<0.025	<0.03	<0.025	<0.03	<0.025	<0.03
Iron	0.8 J	<0.1	1.8	3.5	<0.1	1.4	0.54	0.8	0.2	0.2
Lead	0.003	<0.003	0.03 J	0.03	<0.003	0.008	0.007	0.006	<0.003	<0.003
Selenium	0.6	0.59	1.1	1	1.3	6.3	7.5	0.3	0.35	0.08
Zinc	0.05 J	0.17 J	0.5	0.4	0.57	0.06	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8.1	7.9	7.6	7.8	7.9	8	7.8	8	8.2	8.2
Specific Conductivity (umhos/cm)	10700	11400	5480	4860	6010	3540	3720	3070	3110	4470
Total Dissolved Solids	8600	8956	3879	3434	4286	2554	2719	2228	2703	3099
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-104 8/7/2003	EP-105 5/7/2003	EP-105 8/13/2003	EP-106 4/30/2003	EP-106 8/8/2003	EP-107 4/30/2003	EP-107 8/7/2003	EP-108 5/1/2003	EP-108 8/11/2003	EP-109 5/2/2003
Total Metals (mg/L)										
Arsenic	0.084	0.2	0.25	0.006	0.005	0.03	0.024	1.1	0.98	0.006
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.025	0.2	0.038	<0.03	<0.025	<0.03	<0.025	<0.03	<0.025	<0.03
Iron	0.15	10	0.15	0.7	<0.1	0.5	0.19	0.4 J	0.44 J	0.5
Lead	<0.003	0.1	0.003	<0.003	<0.003	<0.003	<0.003	0.004	<0.003	0.006
Selenium	0.094	0.03	0.032	0.1	0.12	0.4	0.45	0.04	0.036	0.07
Zinc	<0.02	0.5	0.19	<0.02	0.19 J	<0.02	<0.02	<0.02	0.14 J	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8.3	8.4	8.2	8	8	8.1	8.2	8.4	8.2	8.2
Specific Conductivity (umhos/cm)	4500	4070	4090	4670	4860	5730	5930	3430	2960	3870
Total Dissolved Solids	3160	2883	2981	3625	3760	4355	4436	2298	1946	2628
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-109 8/11/2003	EP-110 4/29/2003	EP-110 8/4/2003	EP-111 2/13/2003	EP-111 5/3/2003	EP-111 8/12/2003	EP-112 2/18/2003	EP-112 5/3/2003	EP-112 8/12/2003	EP-113 2/18/2003
Total Metals (mg/L)										
Arsenic	0.01	0.009	0.009	1.1	1	1	0.01	0.01	0.009	0.007
Cadmium	<0.005	<0.005	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.025	<0.03	<0.025	<0.03	<0.03	<0.025	<0.03	<0.03	<0.025	<0.03
Iron	<0.1 UJ	<0.1	<0.1	1.9	1.5	1.5	<0.1	<0.1	<0.1	0.5
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Selenium	0.061	0.02	0.017	0.01	0.02	0.01	0.03	0.05	0.02	0.005
Zinc	0.18 J	0.02	0.029	0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8.2	8	7.8	7.4	8.3	7.7	7.4	8.1	7.7	7.5
Specific Conductivity (umhos/cm)	3860	2980	3020	5280	5450	5550	6980	6700	6570	3720
Total Dissolved Solids	2643	2075	2103	3885	3811	3964	4683	4418	4373	2524
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-113 5/3/2003	EP-113 8/12/2003	EP-114 2/11/2003	EP-114 4/28/2003	EP-114 8/6/2003	EP-116 2/11/2003	EP-116 4/28/2003	EP-116 8/6/2003	EP-117 2/11/2003	EP-117 4/28/2003
Total Metals (mg/L)										
Arsenic	0.005	0.005	299	359	297	6.2	21	3.6	6.1	8.1
Cadmium	<0.005	<0.005	1	4.1	0.17	0.9	3.8	0.22	0.3	1.2
Chromium	<0.01	<0.01	0.03	0.1	<0.01	0.04	0.2	<0.01	0.02	0.05
Copper	<0.03	<0.025	0.1	0.4	<0.025	35	170	1.6	3.7	0.6
Iron	0.5	0.62	101	307	45	44	224	<0.1	16	87
Lead	<0.003	<0.003	0.05	0.2	<0.01	4.9	16	0.005	1	4.7
Selenium	0.01	0.006	0.2	0.1	<0.1	0.3	0.5	0.19	1	1.1
Zinc	<0.02	<0.02	28	100	7.8	6	22	1.5	0.8	1.8
Water Quality Parameters (mg/L)										
pH (SU)	8.3	8.1	7.2	7.3	7.8	7.4	7.4	8.4	7.4	7.9
Specific Conductivity (umhos/cm)	3700	3730	7930	7910	8000	5400	5490	5400	4380	4310
Total Dissolved Solids	2504	2535	6760	6531	6938	3773	3767	3767	3215	3185
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-117 8/6/2003	EP-118 4/28/2003	EP-118 8/6/2003	EP-119 3/4/2003	EP-119 5/5/2003	EP-119 8/11/2003	EP-12 5/12/2003	EP-12 8/13/2003	EP-120 5/1/2003	EP-120 8/11/2003
Total Metals (mg/L)										
Arsenic	4.7	1.6	0.25	2.1	2.2	2.1	0.6	0.27	0.2	0.3
Cadmium	0.045	0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	0.2	<0.01	<0.01	<0.01	<0.01	0.02	0.027	<0.01	<0.01
Copper	<0.025	3.9	<0.025	<0.03	<0.03	<0.025	<0.03	<0.025	0.05	<0.025
Iron	<0.1	450	0.16	1 J	<0.1	<0.1 UJ	2	0.44	0.4 J	<0.1 UJ
Lead	<0.003	5.1	0.006	<0.003	<0.003	<0.003	0.007	0.003	0.005	<0.003
Selenium	1.1	0.4	0.26	0.2	0.2	0.24	0.03 J	0.029	0.06	0.051
Zinc	0.12	3.4	0.1	0.05	<0.02	<0.02 UJ	0.02	<0.02	<0.02	0.19 J
Water Quality Parameters (mg/L)										
pH (SU)	8.3	8.2	8.5	7.4	8.5	7.9	7.9	7.6	8	7.9
Specific Conductivity (umhos/cm)	4380	3490	3280	3690	3640	3590	4260	4360	3590	3920
Total Dissolved Solids	3247	2502	1988	2512	2539	2524	2753	2918	2539	2641
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-121 5/1/2003	EP-121 8/11/2003	EP-122 2/19/2003	EP-122 5/5/2003	EP-122 8/11/2003	EP-123 5/2/2003	EP-123 8/11/2003	EP-124 3/6/2003	EP-124 5/7/2003	EP-125 5/1/2003
Total Metals (mg/L)										
Arsenic	0.5	0.51	2.2	2.4	2.2	1.6	1.8	7.6	6	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	0.007	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.025	<0.03	<0.03	<0.025	<0.03	<0.025	0.05	0.05	0.03
Iron	0.3 J	<0.1 UJ	0.2	0.1	<0.1 UJ	<0.1	<0.1 UJ	3.7	3.9	1.9 J
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.04	0.07	0.006
Selenium	0.03	0.029	0.3	0.3	0.21	0.07	0.075	<0.005	0.008	0.3
Zinc	<0.02	<0.02 UJ	<0.02	<0.02	<0.02 UJ	<0.02	<0.02 UJ	0.1	0.08 J	4
Water Quality Parameters (mg/L)										
pH (SU)	8.3	8.3	7.3	8.5	7.8	8.3	8.3	7.4	8.6	7.8
Specific Conductivity (umhos/cm)	3410	3470	3320	3080	3310	3050	3300	4500	4460	9600
Total Dissolved Solids	2266	2347	2273	2073	2230	2021	2198	2960	3011	7978
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-125 8/8/2003	EP-126 5/1/2003	EP-126 8/8/2003	EP-127 2/18/2003	EP-127 5/3/2003	EP-127 8/12/2003	EP-128 2/13/2003	EP-128 5/3/2003	EP-128 8/12/2003	EP-129 5/2/2003
Total Metals (mg/L)										
Arsenic	0.009	0.01	0.012	2.5	3.1	3.1	0.6	0.8	0.71	0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	0.03	0.065	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.025	<0.03	<0.025	<0.03	<0.03	<0.025	<0.03	<0.03	<0.025	<0.03
Iron	0.12	0.2 J	<0.1	0.7	1.1	1.3	0.5	0.8	0.73	4.7
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.008	<0.003	0.005
Selenium	0.34	0.7	1	0.03	0.03	0.013	0.01	0.02	0.011	0.04
Zinc	2	<0.02	0.21 J	<0.02	0.02	<0.02	0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	7.9	8.1	7.9	7.4	7.2	7.6	7.5	7.2	7.9	8.1
Specific Conductivity (umhos/cm)	9900	5580	5950	6640	6630	6500	6820	6920	7260	3710
Total Dissolved Solids	8460	4460	4903	4795	4780	4787	4284	4268	4524	2665
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-129 8/9/2003	EP-13 2/12/2003	EP-13 4/29/2003	EP-13 8/7/2003	EP-130 4/30/2003	EP-130 8/8/2003	EP-131 4/30/2003	EP-131 8/8/2003	EP-132 3/4/2003	EP-132 5/5/2003
Total Metals (mg/L)										
Arsenic	<0.005	32	20	20	0.5	0.57	1.1	1.1	2	2.2
Cadmium	<0.005	0.8	0.4	0.38	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.025	<0.03	<0.03	0.033	<0.03	<0.025	<0.03	<0.025	<0.03	<0.03
Iron	<0.1	0.2	0.6	0.64	0.5	<0.1	0.3	0.23	0.9 J	2.6
Lead	<0.003	0.007 J	0.01	0.023	0.004	<0.003	<0.003	<0.003	<0.003	0.007
Selenium	0.038	6.1	3.7	3.9	0.3	0.28	0.1	0.12	0.2	0.2
Zinc	0.13	<0.02	0.04	0.065	<0.02	0.26 J	<0.02	<0.02 UJ	0.06	0.03
Water Quality Parameters (mg/L)										
pH (SU)	8	7.5	7.6	8.3	7.6	7.7	8.1	8.2	7.3	8
Specific Conductivity (umhos/cm)	3690	10500	7380	7640	11020	11200	4620	4580	4140	4730
Total Dissolved Solids	2670	8509	5550	5881	8913	9315	3316	3307	2911	3445
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-132 8/11/2003	EP-133 2/18/2003	EP-133 5/3/2003	EP-133 8/12/2003	EP-134 2/13/2003	EP-134 5/3/2003	EP-134 8/12/2003	EP-135 3/4/2003	EP-135 5/5/2003	EP-135 8/11/2003
Total Metals (mg/L)										
Arsenic	2.1	2	2	2.4	0.8	0.9	0.84	1.9	2.6	2.2
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	0.01	<0.01
Copper	<0.025	<0.03	<0.03	<0.025	<0.03	<0.03	<0.025	0.1	0.04	<0.025
Iron	<0.1 UJ	1.7	1.5	1.4	0.7	0.9	0.14	65	20	3.1
Lead	<0.003	<0.003	<0.003	<0.003	0.005	0.007	<0.003	0.06	0.02	0.007
Selenium	0.19	0.1	0.2	0.077	0.09	0.1	0.065	0.2	0.3	0.26
Zinc	0.23 J	<0.02	0.03	<0.02	0.03	<0.02	0.23	0.3	0.08	0.26 J
Water Quality Parameters (mg/L)										
pH (SU)	7.8	7.3	7.9	7.9	7.4	7.5	7.6	7.2	7.9	7.7
Specific Conductivity (umhos/cm)	4700	4800	4750	4820	5150	5160	5250	8640	9000	8860
Total Dissolved Solids	3490	3479	3372	3468	3723	3737	3781	6576	7167	6912
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-136 2/18/2003	EP-136 5/3/2003	EP-136 8/12/2003	EP-137 2/13/2003	EP-137 5/3/2003	EP-137 8/12/2003	EP-14 4/29/2003	EP-14 8/4/2003	EP-15 4/30/2003	EP-15 8/7/2003
Total Metals (mg/L)										
Arsenic	0.05	0.03	0.031	0.6	0.4	0.52	1.6	1.5	<0.005	0.006
Cadmium	<0.005	<0.005	<0.005	0.05	0.03	0.009	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.025	0.1	0.05	<0.025	<0.03	<0.025	<0.03	<0.025
Iron	0.9	1	1.2	7.3	5.3	0.75	<0.1	0.37	0.6	<0.1
Lead	<0.003	<0.003	<0.003	0.08	0.06	0.004	<0.003	0.005	<0.003	<0.003
Selenium	0.02	0.03	0.014	0.4	0.3	0.14	0.4	0.34	0.2	0.18
Zinc	<0.02	0.03	<0.02	0.3	0.2	0.056	<0.02	0.086	<0.02	0.19
Water Quality Parameters (mg/L)										
pH (SU)	7.4	7.3	7.5	7.5	8.1	7.9	8	7.5	8	8.1
Specific Conductivity (umhos/cm)	6170	6140	6880	4660	4880	5180	4960	4830	4410	4560
Total Dissolved Solids	4417	4355	4999	3314	3441	3825	3760	3761	3151	3303
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-20 3/6/2003	EP-20 4/28/2003	EP-20 8/6/2003	EP-21 5/7/2003	EP-21 8/13/2003	EP-22 5/1/2003	EP-22 8/8/2003	EP-23 3/5/2003	EP-23 5/7/2003	EP-23 8/13/2003
Total Metals (mg/L)										
Arsenic	1.5	1.6	1.7	0.4	0.035	5.5	6.6		2.1	1.1
Cadmium	0.2	0.2	0.2	0.1	<0.005	<0.005	<0.005		0.02	<0.005
Chromium	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01		<0.01	<0.01
Copper	<0.03	<0.03	<0.025	0.9	<0.025	0.2	0.095		0.03	<0.025
Iron	4	1.4	<0.1	43	1.1	0.4 J	0.23		0.6 J	0.59
Lead	0.009	0.004	<0.003	0.4	<0.003	0.008	<0.003		0.003	<0.003
Selenium	0.3	0.3	0.37	0.03	0.009	1	1.3		0.03	0.017
Zinc	0.1	0.06	0.043	6.9	<0.089 UJ	0.8	0.62 J		0.4	0.2
Water Quality Parameters (mg/L)										
pH (SU)	7.2	7.5	8.3	8	7.9	8.6	7.7		8.6	8.2
Specific Conductivity (umhos/cm)	7040	6880	6830	5380	4600	10600	10680		5330	5550
Total Dissolved Solids	5618	5504	4559	2864	2627	9253	9346		3183	3250
Volatile Organic Compounds (mg/L)										
Benzene								0.009	0.01	0.01
Ethylbenzene								0.006	0.01	0.0093
Toluene								<0.005	<0.005	<0.005
Total Xylenes								<0.005	<0.005	<0.005
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons								<5	<5	<5

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Location / Sampling Date	EP-23 11/19/2003	EP-24 5/7/2003	EP-24 8/13/2003	EP-25 5/12/2003	EP-25 8/13/2003	EP-26 3/5/2003	EP-26 5/6/2003	EP-26 8/12/2003	EP-26 11/18/2003	EP-29 4/28/2003
Total Metals (mg/L)										
Arsenic		0.05	0.3	5.4	3.3		0.2	0.27		0.3
Cadmium		<0.005	<0.005	0.02	<0.005		0.2	0.19		<0.005
Chromium		<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01
Copper		<0.03	<0.025	0.5	<0.025		<0.03	<0.025		<0.03
Iron		0.2 J	1.2	3.4	1.2		0.9 J	<0.1		2.2
Lead		<0.003	0.004	0.3	<0.003		0.01 J	<0.003		<0.003
Selenium		<0.005	<0.005	0.03 J	0.019		1	0.98		0.2
Zinc		<0.02 UJ	<0.087 UJ	0.3	0.24		0.6	0.8		<0.02
Water Quality Parameters (mg/L)										
pH (SU)		8.4	7.8	8.4	7.6		8	7.9		8.4
Specific Conductivity (umhos/cm)		3040	4020	4820	5240		4900	4940		3690
Total Dissolved Solids		1869	2390	2760	3117		3604	3656		2518
Volatile Organic Compounds (mg/L)										
Benzene	0.0152					<0.001	<0.001	<0.001	<0.001	
Ethylbenzene	0.0082					<0.001	<0.001	<0.001	<0.001	
Toluene	<0.005					<0.001	<0.001	<0.001	<0.001	
Total Xylenes	<0.005					<0.001	<0.001	<0.001	<0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	6.1					<5	<5	<5	<5	

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Location / Sampling Date	EP-29 8/6/2003	EP-35 4/28/2003	EP-35 8/6/2003	EP-4 2/11/2003	EP-4 4/28/2003	EP-4 8/6/2003	EP-43 5/12/2003	EP-43 8/13/2003	EP-5 4/28/2003	EP-5 8/6/2003
Total Metals (mg/L)										
Arsenic	0.25	0.5	0.42	0.2	0.1	0.085	1.1	0.21	0.07	0.027
Cadmium	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.081	0.03	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.025	<0.03	<0.025	0.03	0.1	<0.025	<0.03	<0.025	0.1	<0.025
Iron	0.27	10	0.12	4.5	10	1.2	0.9	0.36	2.6	0.11
Lead	<0.003	0.02	<0.003	0.02	0.07	<0.003	0.03	0.004	0.03	0.006
Selenium	0.18	0.5	0.51	<0.005	<0.005	<0.005	0.02 J	0.008	0.01	0.005
Zinc	<0.02	0.03	<0.02	<0.02	0.08	<0.02	0.04	<0.02	0.04	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8.4	7.8	8.1	7.7	8.2	8.4	8.1	7.5	8.4	8.4
Specific Conductivity (umhos/cm)	3830	6320	6360	2330	2280	2430	3110	3280	3780	3420
Total Dissolved Solids	2592	5135	5078	1556	1500	1657	2059	2117	2470	2332
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-51 3/5/2003	EP-51 5/6/2003	EP-51 8/13/2003	EP-51 11/18/2003	EP-52 3/5/2003	EP-52 5/7/2003	EP-52 8/13/2003	EP-52 11/19/2003	EP-53 3/5/2003	EP-53 5/7/2003
Total Metals (mg/L)										
Arsenic		0.4	0.093			0.5	0.25		21	24
Cadmium		0.05	0.051			0.4	0.43		0.1	0.2
Chromium		2.9	<0.01			0.07	<0.01		0.02	0.03
Copper		0.3	0.11			0.4	0.35		0.04	0.05
Iron		5	0.12			1.3 J	<0.1		1.4	17
Lead		0.03	<0.003			0.5	0.082		0.003	0.01
Selenium		0.2	0.16			0.2	0.16		1	1.1
Zinc		0.7	0.73			3.1	3.2		0.6	1
Water Quality Parameters (mg/L)										
pH (SU)		8.1	7.3			8	7		7.3	7
Specific Conductivity (umhos/cm)		16900	17650			12630	12890		6210	6210
Total Dissolved Solids		11694	12392			10803	11090		4023	4297
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

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Location / Sampling Date	EP-53 8/13/2003	EP-53 11/18/2003	EP-54 3/5/2003	EP-54 5/7/2003	EP-54 8/13/2003	EP-54 11/19/2003	EP-56 3/5/2003	EP-56 5/6/2003	EP-56 8/12/2003	EP-56 11/18/2003
Total Metals (mg/L)										
Arsenic	21		18	21	17		3	4.1	4.1	
Cadmium	0.038		0.3	0.4	0.38		0.02	0.008	0.007	
Chromium	<0.01		<0.01	0.03	<0.01		0.02	0.02	<0.01	
Copper	<0.025		0.4	0.4	0.3		<0.03	0.09	<0.025	
Iron	0.15		2.8	3.6	<0.1		3.7	8.5	<0.1	
Lead	<0.003		0.01	0.02	<0.003		0.005	0.007 J	<0.003	
Selenium	0.89		0.09	0.1	0.13		0.03	0.07	0.037	
Zinc	0.35		6.4	8.8	7.7		0.1	0.03	0.21	
Water Quality Parameters (mg/L)										
pH (SU)	7.9		6.9	8.5	7.3		7.4	8.3	7.6	
Specific Conductivity (umhos/cm)	5940		7220	9370	9880		3580	4000	3950	
Total Dissolved Solids	3951		5264	7148	7683		2286	2760	2754	
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	0.005	0.005	0.0032	0.0041	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

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Location / Sampling Date	EP-57 5/7/2003	EP-57 8/7/2003	EP-58 5/7/2003	EP-58 8/7/2003	EP-59 3/4/2003	EP-59 5/5/2003	EP-59 8/12/2003	EP-59 11/19/2003	EP-6 2/11/2003	EP-6 4/28/2003
Total Metals (mg/L)										
Arsenic	0.06	0.22	5.1	5.4	2	2.1	1.9		0.03	0.03
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	0.01	0.04	0.022		<0.01	<0.01
Copper	<0.03	<0.025	0.03	<0.025	<0.03	<0.03	<0.025		<0.03	<0.03
Iron	0.8 J	0.12	1.5 J	1.5	<0.1 UJ	0.3	0.17		0.1	0.9
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		0.004	0.004
Selenium	0.006	<0.005	0.05	0.053	0.2	0.2	0.19		0.04	0.09
Zinc	<0.02 UJ	0.15	<0.02 UJ	<0.02	0.05	<0.02	<0.02		<0.02	0.02
Water Quality Parameters (mg/L)										
pH (SU)	7.9	7.6	7.7	7.7	7.4	8.4	8		7.5	7.9
Specific Conductivity (umhos/cm)	6280	6280	10900	10900	4270	4290	4340		5260	5160
Total Dissolved Solids	4608	4815	8580	8440	2953	3036	3077		3872	3838
Volatile Organic Compounds (mg/L)										
Benzene					<0.001	<0.001	<0.001	<0.001		
Ethylbenzene					<0.001	<0.001	<0.001	<0.001		
Toluene					<0.001	<0.001	<0.001	<0.001		
Total Xylenes					<0.001	<0.001	<0.001	<0.001		
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons					<5	<5	<5	<5		

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Location / Sampling Date	EP-6 8/6/2003	EP-60 3/4/2003	EP-60 5/5/2003	EP-60 8/12/2003	EP-60 11/19/2003	EP-61 5/7/2003	EP-61 8/7/2003	EP-62 3/4/2003	EP-62 5/5/2003	EP-62 8/12/2003
Total Metals (mg/L)										
Arsenic	0.028		0.01	0.009		0.01	0.022	1.5	1.7	1.9
Cadmium	<0.005		<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01		0.03	0.08		<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.025		<0.03	<0.025		<0.03	<0.025	<0.03	<0.03	<0.025
Iron	<0.1		0.3	0.62		2.1	0.96	<0.1 UJ	<0.1	<0.1
Lead	<0.003		<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003
Selenium	0.08		0.2	0.19		0.4	0.35	0.2	0.2	0.2
Zinc	<0.02		0.02	<0.02		<0.02 UJ	<0.02	0.05	<0.02	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8.2		8	7.8		7.9	8.3	7.3	8.6	7.7
Specific Conductivity (umhos/cm)	5570		7990	7520		6540	6630	4200	4100	4170
Total Dissolved Solids	4145		6415	6245		4994	5123	2946	2821	2976
Volatile Organic Compounds (mg/L)										
Benzene		<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Ethylbenzene		<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Toluene		<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Total Xylenes		<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons		<5	<5	<5	<5			<5	<5	<5

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Location / Sampling Date	EP-62 11/19/2003	EP-63 3/4/2003	EP-63 5/5/2003	EP-63 8/12/2003	EP-63 11/19/2003	EP-64 3/4/2003	EP-64 5/5/2003	EP-64 8/12/2003	EP-64 11/19/2003	EP-65 5/7/2003
Total Metals (mg/L)										
Arsenic			0.02	0.019			0.03	0.036		0.007
Cadmium			<0.005	<0.005			<0.005	<0.005		<0.005
Chromium			<0.01	<0.01			<0.01	<0.01		<0.01
Copper			<0.03	<0.025			<0.03	<0.025		<0.03
Iron			0.2	0.19			0.4	0.2		0.2 J
Lead			<0.003	<0.003			<0.003	<0.003		<0.003
Selenium			0.05	0.053			0.5	0.49		0.2
Zinc			0.02	<0.02			0.03	<0.02		<0.02 UJ
Water Quality Parameters (mg/L)										
pH (SU)			7.7	7.6			8.4	8.2		8.2
Specific Conductivity (umhos/cm)			6380	6360			8820	8680		5550
Total Dissolved Solids			4514	4661			6971	7125		4251
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5	<5	<5	<5	

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Location / Sampling Date	EP-65 8/7/2003	EP-66 3/4/2003	EP-66 5/5/2003	EP-66 8/12/2003	EP-66 11/19/2003	EP-67 4/29/2003	EP-67 8/4/2003	EP-68 4/29/2003	EP-68 8/4/2003	EP-7 2/11/2003
Total Metals (mg/L)										
Arsenic	0.031	7.3	11	11		0.01	0.013	<0.005	0.012	0.08
Cadmium	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.025	<0.03	<0.03	<0.025		<0.03	<0.025	<0.03	<0.025	<0.03
Iron	0.11	0.5 J	0.3	<0.1		<0.1	0.1	0.3	<0.1	1.8
Lead	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003
Selenium	0.25	0.2	0.3	0.26		0.07	0.065	0.2	0.23	<0.005
Zinc	<0.02	0.07	0.03	<0.02		0.02	0.033	<0.02	0.23	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8.2	7.5	8	7.6		7.9	7.5	8	7.6	7.5
Specific Conductivity (umhos/cm)	5430	6340	7260	8130		4100	4080	4440	4200	2080
Total Dissolved Solids	4078	5042	5973	6771		3351	3406	3326	3058	1327
Volatile Organic Compounds (mg/L)										
Benzene		<0.001	<0.001	<0.001	<0.001					
Ethylbenzene		<0.001	<0.001	<0.001	<0.001					
Toluene		<0.001	<0.001	<0.001	<0.001					
Total Xylenes		<0.001	<0.001	<0.001	<0.001					
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons		<5	<5	<5	<5					

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Location / Sampling Date	EP-7 4/28/2003	EP-7 8/6/2003	EP-70 4/29/2003	EP-70 8/4/2003	EP-71 4/29/2003	EP-71 8/4/2003	EP-72 4/29/2003	EP-72 8/4/2003	EP-73 5/1/2003	EP-73 8/8/2003
Total Metals (mg/L)										
Arsenic	0.07	0.061	0.8	0.76	0.2	0.17	0.1	0.11	0.02	0.018
Cadmium	<0.005	<0.005	0.007	0.008	<0.005	<0.005	<0.005	0.01	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.025	<0.03	<0.025	<0.03	<0.025	<0.03	<0.025	<0.03	<0.025
Iron	2	0.79	<0.1	<0.1	<0.1	0.19	0.3	0.4	<0.1 UJ	0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Selenium	<0.005	<0.005	0.2	0.19	0.2	0.2	3.3	3.5	0.7	0.83
Zinc	<0.02	<0.02	0.09	0.31	<0.02	0.03	0.04	0.08	<0.02	<0.02 UJ
Water Quality Parameters (mg/L)										
pH (SU)	8.8	8.9	8.1	7.6	8	7.6	8.2	7.7	8.4	7.8
Specific Conductivity (umhos/cm)	2200	2290	6360	6290	6160	6160	6160	6100	5800	5690
Total Dissolved Solids	1396	1494	4970	4884	4980	4944	5017	4883	4224	4284
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-75 2/12/2003	EP-75 5/1/2003	EP-75 8/8/2003	EP-76 5/1/2003	EP-76 8/8/2003	EP-77 2/12/2003	EP-77 4/30/2003	EP-77 8/8/2003	EP-78 2/19/2003	EP-78 5/2/2003
Total Metals (mg/L)										
Arsenic	16	20	20	0.4	0.2	5.4	3.3	5.9	3.2	3.4
Cadmium	0.02 J	<0.005	<0.005	<0.005	<0.005	0.04 J	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01
Copper	0.05	0.03	<0.025	<0.03	<0.025	<0.03	<0.03	<0.025	<0.03	<0.03
Iron	0.4	1.3 J	<0.1	<0.1 UJ	0.16	0.3	1.1	<0.1	0.2	<0.1
Lead	0.006 J	0.004	<0.003	0.003	0.011	0.008 J	0.004	<0.003	<0.003	<0.003
Selenium	3.9	4	4.1	0.08	0.09	0.03	0.04	0.03	0.2	0.2
Zinc	0.03	0.03	0.23 J	<0.02	0.068 J	<0.02	<0.02	0.21 J	<0.02	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	7.6	6.6	7.7	8.3	8.5	7.6	7.2	7.9	7.6	8.3
Specific Conductivity (umhos/cm)	15220	16270	17780	4610	4720	4250	4260	4320	3110	3340
Total Dissolved Solids	13576	14231	16420	3231	3357	2927	2999	3005	2018	2170
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-78 8/11/2003	EP-79 5/2/2003	EP-79 8/11/2003	EP-80 2/19/2003	EP-80 5/5/2003	EP-80 8/11/2003	EP-81 5/5/2003	EP-81 8/11/2003	EP-82 5/2/2003	EP-82 8/11/2003
Total Metals (mg/L)										
Arsenic	3.4	0.005	0.005	0.02	0.01	0.012	0.5	0.6	<0.005	0.006
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.025	<0.03	<0.025	<0.03	<0.03	<0.025	<0.03	<0.025	<0.03	<0.025
Iron	<0.1 UJ	<0.1	<0.1 UJ	0.4	0.3	0.14 J	0.3	<0.1 UJ	<0.1	<0.1 UJ
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003	<0.003
Selenium	0.19	0.08	0.088	0.02	0.04	<0.005	0.3	0.27	0.06	0.11
Zinc	<0.02 UJ	<0.02	0.17 J	<0.02	0.03	<0.02 UJ	0.03	0.22 J	<0.02	<0.02 UJ
Water Quality Parameters (mg/L)										
pH (SU)	7.8	8.7	8.1	7.3	8	8.3	8.2	7.8	8.1	8
Specific Conductivity (umhos/cm)	3430	4100	4550	5280	5400	4130	2560	2710	2980	4060
Total Dissolved Solids	2272	2720	3074	4075	4003	2890	1919	1953	1980	2843
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-83 5/2/2003	EP-83 8/9/2003	EP-84 5/2/2003	EP-84 8/9/2003	EP-85 2/19/2003	EP-85 5/5/2003	EP-85 8/11/2003	EP-86 5/2/2003	EP-88 5/1/2003	EP-88 8/8/2003
Total Metals (mg/L)										
Arsenic	0.007	<0.005	0.02	0.02	1.8	2.1	1.9	<0.005	0.01	0.008
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.025	<0.03	<0.025	<0.03	<0.03	<0.025	<0.03	<0.03	<0.025
Iron	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 UJ	0.2	0.4 J	<0.1
Lead	<0.003	<0.003	0.02	0.02	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Selenium	0.05	0.043	0.02	0.024	0.2	0.2	0.12	0.03	0.06	0.091
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02 UJ	<0.02	<0.02	0.18 J
Water Quality Parameters (mg/L)										
pH (SU)	8.5	8.4	8	8.2	7.6	8.5	8	8.5	8.5	8.4
Specific Conductivity (umhos/cm)	3820	3810	3130	2840	2860	2900	3150	2670	4720	4600
Total Dissolved Solids	2603	2588	2256	2028	1948	1950	2180	1684	3238	3190
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-89 4/29/2003	EP-89 8/4/2003	EP-90 4/30/2003	EP-90 8/7/2003	EP-93 5/2/2003	EP-93 8/9/2003	EP-94 5/2/2003	EP-94 8/4/2003	EP-95 5/2/2003	EP-95 8/9/2003
Total Metals (mg/L)										
Arsenic	0.005	0.005	0.2	0.18	0.007	0.006	0.005	<0.005	0.01	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.025	<0.03	<0.025	<0.03	<0.025	<0.03	<0.025	<0.03	<0.025
Iron	<0.1	<0.1	1.4	<0.1	1.1	<0.1	<0.1	<0.1	<0.1	0.12
Lead	<0.003	<0.003	0.004	<0.003	0.007	<0.003	<0.003	<0.003	<0.003	<0.003
Selenium	0.02	0.019	0.6	0.74	0.04	0.037	0.03	0.03	0.03	0.029
Zinc	<0.02	0.021	<0.02	0.22	<0.02	0.21	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8	7.6	8	8.1	8.4	8.4	8.4	8.2	8.7	8.5
Specific Conductivity (umhos/cm)	2980	3070	4930	5070	4880	4770	4720	4700	3280	3340
Total Dissolved Solids	2153	2090	3628	4606	3339	3197	3201	3213	2112	2112
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-96 5/2/2003	EP-96 8/9/2003	EP-97 5/2/2003	EP-97 8/9/2003	EP-98 5/2/2003	EP-98 8/9/2003
Total Metals (mg/L)						
Arsenic	0.007	0.006	0.2	0.18	0.03	0.015
Cadmium	<0.005	<0.005	0.02	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.025	0.4	0.28	<0.03	<0.025
Iron	0.5	<0.1	9.4	0.11	0.2	0.2
Lead	0.005	<0.003	0.3	0.008	0.005	0.004
Selenium	0.03	0.027	0.01	0.049	0.8	0.5
Zinc	<0.02	0.21	0.3	0.23	<0.02	<0.02
Water Quality Parameters (mg/L)						
pH (SU)	8.3	8.2	8.4	8	8.5	8.4
Specific Conductivity (umhos/cm)	4420	4600	5140	3370	7210	6510
Total Dissolved Solids	3039	3223	3710	2257	5506	4673
Volatile Organic Compounds (mg/L)						
Benzene						
Ethylbenzene						
Toluene						
Total Xylenes						
Petroleum Hydrocarbons (mg/L)						
Total Petroleum Hydrocarbons						

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Location / Sampling Date	EP-100 2/18/2004	EP-100 8/17/2004	EP-101 2/16/2004	EP-101 8/11/2004	EP-102 2/16/2004	EP-102 8/11/2004	EP-103 2/17/2004	EP-103 8/11/2004	EP-104 2/17/2004	EP-104 8/12/2004	EP-105 2/25/2004	EP-105 8/9/2004	EP-106 2/17/2004
Total Metals (mg/L)													
Arsenic	0.069	0.047	6.1	4.5	0.6	0.54	0.034	0.027	0.078	0.08	0.17	0.19	0.011
Cadmium	0.011	0.015	1.8	2.2	0.17	0.15	0.011	0.024	0.003	0.0071	0.001	0.0012	0.0036
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.017	0.038	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.029	0.021	<0.01
Iron	<0.1	0.11	1.6	<0.1	<0.1	<0.1	0.13	0.16	0.1	<0.1	<0.1	<0.1	0.49
Lead	<0.001	<0.005	0.016	<0.001	<0.001	<0.001	<0.001	<0.001	0.0017	<0.001	<0.001	0.0012	0.0015
Selenium	0.61	0.44	1.2	0.89	7	7.6	0.43	0.7	0.089	0.088	0.021	0.03	0.11
Zinc	0.28	0.29 J	0.69	0.7	0.27	0.07	0.025	0.032	0.029	<0.02	0.21	0.13	0.047
Dissolved Metals (mg/L)													
Aluminum													
Antimony													
Arsenic													
Barium													
Beryllium													
Cadmium													
Calcium													
Chromium													
Cobalt													
Copper													
Iron													
Lead													
Magnesium													
Manganese													
Nickel													
Phosphorus													
Potassium													
Selenium													
Silver													
Sodium													
Thallium													
Vanadium													
Zinc													
Water Quality Parameters (mg/L)													
Bromide													
pH	7.3	7	6.9	6.9	7.3	7.1	7.4	7.2	7.4	7.4	7.7	7.6	7.3
Specific Conductivity (umhos/cm)	10000	13000	5000	5400	3700	4100	2600	3100	4400	4800	4300	4600	4400
Total Dissolved Solids	8600	10000	3700	3900	2800	2900	1900	2200	3100	3100	3100	3100	3700
Total Organic Carbon													
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Location / Sampling Date	EP-106 8/12/2004	EP-107 2/17/2004	EP-107 8/23/2004	EP-108 2/20/2004	EP-108 8/23/2004	EP-109 2/23/2004	EP-109 8/19/2004	EP-110 2/16/2004	EP-110 8/10/2004	EP-111 2/23/2004	EP-111 8/24/2004	EP-112 2/23/2004	EP-112 8/24/2004
Total Metals (mg/L)													
Arsenic	0.015	0.038	0.047	0.93	0.32	0.014	0.0089	0.013	0.01	0.86	0.88	0.023	0.017
Cadmium	0.0082	0.0088	<0.002	<0.001	<0.001	<0.001	0.0013	0.0021	0.0012	<0.001	<0.001	0.001	0.0016
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	0.015	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.7	0.15	0.11	<0.1	<0.1	<0.1	0.24	0.12	<0.1	1.2	2.4	0.12	0.47
Lead	0.0014	0.0012	<0.002	0.0012	<0.001	0.0044	<0.0022 UJ	0.0053	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium	0.12	0.44	0.41	0.039	0.026	0.039	0.04 J	0.023	0.015	0.011	<0.005	0.026	0.0053
Zinc	0.026	0.047	0.025 J	0.22	0.087 J	0.22	0.025	0.035	0.036	0.22	<0.02	0.021	<0.02
Dissolved Metals (mg/L)													
Aluminum													
Antimony													
Arsenic													
Barium													
Beryllium													
Cadmium													
Calcium													
Chromium													
Cobalt													
Copper													
Iron													
Lead													
Magnesium													
Manganese													
Nickel													
Phosphorus													
Potassium													
Selenium													
Silver													
Sodium													
Thallium													
Vanadium													
Zinc													
Water Quality Parameters (mg/L)													
Bromide													
pH	7.2	7.2	7.2	7.6	7.7	7.5	7.5	7.4	7.3	7.2	7.2	7.2	7.2
Specific Conductivity (umhos/cm)	4800	5400	6600	3500	800	4300	4600	3100	3500	6700	7000	7100	7600
Total Dissolved Solids	3800	4300	4400	2400	480	2600	2500	2100	2200	4500	4800	4400	4600
Total Organic Carbon													
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

Table I-2
Groundwater Sampling Results (ASARCO): 2004

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Location / Sampling Date	EP-113 2/23/2004	EP-113 8/24/2004	EP-114 2/24/2004	EP-114 8/9/2004	EP-116 2/24/2004	EP-116 8/9/2004	EP-117 2/24/2004	EP-117 8/9/2004	EP-119 2/19/2004	EP-119 8/20/2004	EP-12 2/25/2004	EP-12 9/8/2004	EP-120 2/20/2004
Total Metals (mg/L)													
Arsenic	0.012	0.0094	290	250	3.6	0.84	4.6	4.3	2	1.9	5.6	0.9 J	0.31
Cadmium	<0.001	0.0012	0.012	0.041	0.24	0.56	0.046	0.037	0.0026	0.0017	0.0013	<0.002 UJ	0.0018
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	1.8	7.3	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.019
Iron	0.45	0.72	42	38	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.8	0.37 J	<0.1
Lead	<0.001	<0.001	<0.001	<0.002	0.0045	0.035	0.0013	0.014	<0.001	<0.001	0.02	<0.002 UJ	<0.001
Selenium	<0.005	<0.005	<0.05	0.019	0.23	0.14	1.1	1	0.25	0.18	0.099	0.027	0.036
Zinc	<0.02	<0.02	5	6	1.7	4.4	0.21 J	0.051	0.21	<0.02	0.048	0.29 J	0.2
Dissolved Metals (mg/L)													
Aluminum			<0.1	<0.1	<0.1	<0.1					<0.1	<0.1	
Antimony			<0.01	0.015	<0.01	<0.01					<0.01	<0.01	
Arsenic			280	280	3.8	0.91					0.51	0.9	
Barium			0.022	0.36	0.021	0.022					0.13	0.46	
Beryllium			<0.005	<0.005	<0.005	<0.005					<0.005	<0.005	
Cadmium			0.0097	0.041	0.26	0.57					<0.005	<0.005	
Calcium			580	530	260	270					210	250	
Chromium			<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	
Cobalt			0.041	0.055	0.013	0.033					<0.01	<0.01	
Copper			<0.01	<0.01	1.9	7.4					<0.01	<0.01	
Iron			42	39	<0.1	<0.1					0.26	0.37	
Lead			<0.003	<0.003	0.0097	0.021					0.003	<0.003	
Magnesium			240	240	84	74					89	100	
Manganese			3.8	3.7	1.1	1.3					0.39	0.51	
Nickel			0.38	0.35	0.056	0.071					0.054	0.064	
Phosphorus			<3	<3	<3	<3					<3	<3	
Potassium			210	210	42	35					14	15	
Selenium			<0.031	0.022	0.22	0.15					0.035	0.048	
Silver			<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	
Sodium			1100	1200	910	820					860	930	
Thallium			0.014	0.026	0.076	0.12					<0.01	<0.01	
Vanadium			<0.01	<0.01	0.039	0.016					0.024	0.024	
Zinc			4.7	5.9	1.6	4.4					<0.02	0.15	
Water Quality Parameters (mg/L)													
Bromide			24	23	5	5.1					5.7	5.7	
pH	7.5	7.4	6.6	6.5	7.1	6.8	7.3	7.2	7.4	7.4	7.2	7.1	7.7
Specific Conductivity (umhos/cm)	4300	4300	7900	9200	5700	6100	4500	4800	3700	4700	4600	6200	3800
Total Dissolved Solids	2600	2700	7000	7200	4000	4000	3300	3300	2500	2600	2900	4000	2600
Total Organic Carbon			15	15	5.1	3.5					30	14	
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Location / Sampling Date	EP-120 8/23/2004	EP-121 2/20/2004	EP-121 8/23/2004	EP-122 2/19/2004	EP-122 8/23/2004	EP-123 2/23/2004	EP-123 8/19/2004	EP-124 8/10/2004	EP-125 2/18/2004	EP-125 8/13/2004	EP-126 2/18/2004	EP-126 8/13/2004	EP-127 2/23/2004
Total Metals (mg/L)													
Arsenic	0.29	0.46	0.4	2	2	1.5	2.4	2.6	0.022	<0.025	0.034	0.019	2.7
Cadmium	<0.001	<0.001	<0.001	<0.001	0.0015	<0.001	<0.001	0.0026	0.005	0.0052	0.0054	0.004	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.017	0.03	0.011	<0.01	<0.01
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.9	<0.1	0.11	<0.1	0.1	0.85
Lead	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.016	<0.001	<0.005	<0.001	<0.001	0.0011
Selenium	0.053	0.029	0.024	0.18	0.18	0.07	0.075 J	<0.005	0.36	0.3	0.68	0.37	0.012
Zinc	0.042 J	0.18	<0.02 UJ	0.21	<0.02 UJ	<0.02	0.13	0.045	1.7	2.8	0.23	0.024	0.029
Dissolved Metals (mg/L)													
Aluminum				<0.1	<0.1								
Antimony				0.046	0.049								
Arsenic				2.3	2.1								
Barium				0.029	0.54								
Beryllium				<0.005	<0.005								
Cadmium				<0.005	<0.005								
Calcium				150	110								
Chromium				<0.01	<0.01								
Cobalt				<0.01	<0.01								
Copper				<0.01 UJ	<0.01								
Iron				<0.1	<0.1								
Lead				<0.003	<0.003								
Magnesium				64	53								
Manganese				<0.01 UJ	<0.01								
Nickel				<0.04	<0.04								
Phosphorus				<3	<3								
Potassium				45	41								
Selenium				0.19	0.19								
Silver				<0.01	<0.01								
Sodium				620	580								
Thallium				<0.01	<0.01								
Vanadium				0.043	0.044								
Zinc				0.031	0.13								
Water Quality Parameters (mg/L)													
Bromide				1.9	1.5								
pH	7.6	7.6	7.6	7.4	7.4	7.7	7.8	7.3	6.8	6.8	7.2	7.3	7.1
Specific Conductivity (umhos/cm)	4000	3400	3600	3600	4200	3800	3500	4700	8900	11000	4900	4900	6800
Total Dissolved Solids	2600	2200	2100	2500	2400	2400	2000	3100	8200	8600	3800	3500	4700
Total Organic Carbon				3.3	3.4								
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Location / Sampling Date	EP-127 8/24/2004	EP-128 2/23/2004	EP-128 8/24/2004	EP-129 2/20/2004	EP-129 8/18/2004	EP-13 2/16/2004	EP-13 8/11/2004	EP-130 2/17/2004	EP-130 8/13/2004	EP-131 2/17/2004	EP-131 8/13/2004	EP-132 2/19/2004	EP-132 8/20/2004
Total Metals (mg/L)													
Arsenic	2.7	0.77	0.71	0.013	0.018	20	22	0.61	0.87	0.9	0.72	1.7	2.2
Cadmium	0.0012	<0.001	<0.001	<0.001	<0.001	0.44	0.48	0.0071	0.0065	0.0017	0.0029	0.0015	0.0011
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	0.017	<0.01	<0.01	0.014	<0.01	<0.01	<0.01	<0.01
Iron	0.72	0.58	0.43	<0.1	<0.1	0.27	0.27	<0.1	0.12	<0.1	<0.1	<0.1	<0.1
Lead	<0.001	0.001	<0.001	<0.001	<0.001	0.011	0.0069	0.001	<0.005	<0.001	<0.001	<0.001	<0.001
Selenium	<0.005	0.0086	<0.005	0.037	0.031 J	4.3	4.5	0.34	0.28	0.12	0.12	0.2	0.23
Zinc	<0.02	0.039	0.02	0.25	0.26	0.06	0.033	0.22	0.24	0.034	0.17	0.19	0.21
Dissolved Metals (mg/L)													
Aluminum										<0.1	<0.1	<0.1	<0.1
Antimony										<0.01	<0.01	<0.01	0.011
Arsenic										0.96	0.75	1.9	2.1
Barium										0.022	0.023	0.026	0.13
Beryllium										<0.005	<0.005	<0.005	<0.005
Cadmium										<0.005	<0.005	<0.005	<0.005
Calcium										160	170	230	220
Chromium										<0.01	<0.01	<0.01	<0.01
Cobalt										<0.01	0.014	<0.01	<0.01
Copper										<0.01	<0.01	0.039 J	<0.01
Iron										<0.1	<0.1	<0.1	<0.1
Lead										<0.003	<0.003	<0.003	<0.003
Magnesium										59	64	49	49
Manganese										0.014	0.028	0.065 J	0.018
Nickel										<0.04	<0.04	0.041	<0.04
Phosphorus										<3	<3	<3	<3
Potassium										21	21	45	46
Selenium										0.11	0.12	0.19	0.22
Silver										<0.01	<0.01	<0.01	<0.01
Sodium										840	880	710	700
Thallium										<0.01	<0.01	<0.01	<0.01
Vanadium										0.032	0.029	0.031	0.043
Zinc										0.029	0.021	0.049	0.028 J
Water Quality Parameters (mg/L)													
Bromide										2.8	2.7	3.6	4.1
pH	7.1	7.8	7.9	7.4	7.3	7.2	7.2	6.6	6.7	7.3	7.3	7.3	7.3
Specific Conductivity (umhos/cm)	6500	6500	6400	3600	4600	7000	9200	10000	12000	4500	5000	4300	4900
Total Dissolved Solids	4200	4300	3400	2600	2700	5600	6900	9300	11000	3300	3500	3100	3300
Total Organic Carbon										4.1	4.1	3.8	3.6
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Location / Sampling Date	EP-133 2/23/2004	EP-133 8/24/2004	EP-134 2/23/2004	EP-134 8/24/2004	EP-135 2/19/2004	EP-135 8/20/2004	EP-136 2/23/2004	EP-136 8/24/2004	EP-137 2/23/2004	EP-137 8/24/2004	EP-14 2/16/2004	EP-14 8/11/2004	EP-15 2/17/2004
Total Metals (mg/L)													
Arsenic	1.9	2.5	0.62	0.78	1.9	2	0.13	0.061	0.13	0.16	1.5	1.3	0.04
Cadmium	<0.001	<0.001	<0.001	0.0017	0.0021	<0.005	<0.001	0.0024	0.0044	0.018	0.0011	<0.001	0.021
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.015	<0.01	<0.01	<0.01
Iron	0.97	2.1	<0.1	0.16	<0.1	0.24	0.92	0.58	<0.26	<0.1	<0.1	<0.1	<0.1
Lead	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	0.001	<0.001	<0.001	<0.001	0.0021	0.0012	<0.001
Selenium	0.029	<0.005	0.014	<0.005	0.28	0.24	0.011	<0.005	0.081	0.59	0.44	0.31	0.14
Zinc	0.25	<0.02	0.21	0.17	0.3	0.28	0.036	0.023	0.26	0.31	0.029	<0.02	0.18
Dissolved Metals (mg/L)													
Aluminum	<0.1	<0.1											
Antimony	<0.01	<0.01											
Arsenic	2.1	2.4											
Barium	0.044	0.045											
Beryllium	<0.005	<0.001											
Cadmium	<0.005	<0.005											
Calcium	240	230											
Chromium	<0.01	<0.01											
Cobalt	<0.01	<0.01											
Copper	<0.01	<0.01											
Iron	0.92	2											
Lead	<0.003	<0.003											
Magnesium	56	64											
Manganese	0.63	0.73											
Nickel	0.051	0.056											
Phosphorus	<3	<3											
Potassium	47	50											
Selenium	0.023	<0.015											
Silver	<0.01	<0.01											
Sodium	760	910											
Thallium	<0.01	<0.01											
Vanadium	<0.01	<0.01											
Zinc	0.043	<0.02											
Water Quality Parameters (mg/L)													
Bromide	4.5	4.6											
pH	7.3	7.2	7.5	7.3	7.3	7.4	7.1	7.1	7.5	7.2	7.1	7	7.3
Specific Conductivity (umhos/cm)	5200	5400	3800	5600	7700	11000	7300	7300	4600	5700	4800	5400	4300
Total Dissolved Solids	3400	3900	2700	3600	6600	6900	4800	4500	3500	3900	4000	3900	3200
Total Organic Carbon	4.5 J	5.6											
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Location / Sampling Date	EP-20 2/24/2004	EP-20 8/10/2004	EP-21 2/25/2004	EP-21 9/8/2004	EP-22 2/18/2004	EP-22 8/16/2004	EP-23 2/18/2004	EP-23 8/18/2004	EP-24 2/25/2004	EP-24 8/18/2004	EP-25 2/25/2004	EP-25 9/8/2004	EP-26 2/18/2004
Total Metals (mg/L)													
Arsenic	1.5	1.4	0.13	0.48 J	3.8	4.2	0.7	0.63	0.19	0.4	10	2.7 J	0.14
Cadmium	0.19	0.21	0.054	0.11 J	0.014	0.016	<0.001	<0.001	0.0021	<0.001	0.049	0.0091 J	0.14
Chromium	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	0.023	<0.01	0.077	0.098	<0.01	<0.01	0.036	<0.01	1.6	0.12	<0.01
Iron	<0.1	<0.1	7.8	16 J	<0.1	<0.1	0.39	0.5	2.6	0.96	39	5.3 J	<0.1
Lead	<0.001	<0.002	0.061	0.2 J	<0.001	<0.005	0.0012	0.0011	0.016	<0.001	0.82	0.16 J	<0.001
Selenium	0.4	0.33	0.017	<0.01	1.3	1.2	0.024	<0.0054 UJ	<0.005	<0.005 UJ	0.38	0.021	1.3
Zinc	0.053 J	0.067	2.4	7.2 J	0.59	0.51	0.13	0.12	0.05	0.15	0.8	0.14 J	0.67
Dissolved Metals (mg/L)													
Aluminum													
Antimony													
Arsenic													
Barium													
Beryllium													
Cadmium													
Calcium													
Chromium													
Cobalt													
Copper													
Iron													
Lead													
Magnesium													
Manganese													
Nickel													
Phosphorus													
Potassium													
Selenium													
Silver													
Sodium													
Thallium													
Vanadium													
Zinc													
Water Quality Parameters (mg/L)													
Bromide													
pH	7	6.9	7.4	7.4	7.1	7.2	7.4	7.4	7.2	7	7.1	7	7.2
Specific Conductivity (umhos/cm)	6900	7700	4900	6800	9300	11000	4900	6100	4600	6800	5200	5200	4800
Total Dissolved Solids	5300	5600	2700	3800	8300	9000	2900	3200	2800	3400	3000	2500	3700
Total Organic Carbon													
Volatile Organic Compounds (mg/L)													
Benzene							<0.01	0.0091					<0.001
Ethylbenzene							<0.01	0.0023					<0.001
Toluene							0.047	<0.001					<0.001
Total Xylenes							<0.01	<0.001					<0.001
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons							7.06	<5					<5

Table I-2
Groundwater Sampling Results (ASARCO): 2004

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-26 8/17/2004	EP-26 12/10/2004	EP-29 2/24/2004	EP-29 8/10/2004	EP-35 2/24/2004	EP-35 8/10/2004	EP-4 2/24/2004	EP-4 8/9/2004	EP-43 2/25/2004	EP-43 9/8/2004	EP-5 2/24/2004	EP-5 8/9/2004	EP-51 2/18/2004
Total Metals (mg/L)													
Arsenic	0.21		0.23	0.24	0.47	0.48	0.054	0.057	0.87	0.5 J	0.023	0.032	0.09
Cadmium	0.097		<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.0033	0.001 J	0.0013	0.0018	0.055
Chromium	<0.01		<0.01	1.9	<0.01	<0.01	<0.01	<0.01	0.08	0.024	<0.01	<0.01	0.036
Copper	<0.01		<0.01	0.011	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	0.045	0.03	0.081
Iron	<0.1		0.15	8.4	0.1	<0.1	0.91	0.89	1.7	0.93 J	<0.1	<0.1	4.4
Lead	<0.001		0.0023	0.0023	0.0023	<0.002	<0.001	<0.001	0.02	0.011 J	0.0055	0.0076	<0.001
Selenium	0.97		0.2	0.2	0.47	0.5	<0.005	<0.005	0.13	0.056	0.026	<0.005	0.22
Zinc	0.43 J		<0.02 UJ	<0.02	0.051 J	<0.02	<0.02 UJ	<0.02	0.024	0.02 J	<0.02 UJ	<0.02	0.83
Dissolved Metals (mg/L)													
Aluminum							<0.1	<0.1					
Antimony							<0.01	<0.01					
Arsenic							0.056	0.064					
Barium							0.11	0.33					
Beryllium							<0.005	<0.005					
Cadmium							<0.005	<0.005					
Calcium							140	130					
Chromium							<0.01	<0.01					
Cobalt							<0.01	<0.01					
Copper							<0.01	<0.01					
Iron							0.78	0.81					
Lead							<0.003	<0.003					
Magnesium							36	34					
Manganese							1.1	1.2					
Nickel							<0.04	<0.04					
Phosphorus							<3	<3					
Potassium							14	15					
Selenium							<0.015	<0.015					
Silver							<0.01	<0.01					
Sodium							440	480					
Thallium							<0.01	<0.01					
Vanadium							<0.01	<0.01					
Zinc							0.022	0.056					
Water Quality Parameters (mg/L)													
Bromide							0.64	0.86					
pH	7.2		7.6	7.6	7	6.9	7.7	7.7	7	7	7.8	7.8	6.7
Specific Conductivity (umhos/cm)	5000		4000	4000	6400	6600	3000	3600	4800	4800	3600	4100	15000
Total Dissolved Solids	3700		2600	2700	4900	4800	1800	2000	3200	2800	2300	2400	11000
Total Organic Carbon							4	3.5					
Volatile Organic Compounds (mg/L)													
Benzene	<0.001	<0.001											<0.001
Ethylbenzene	<0.001	<0.001											<0.001
Toluene	<0.001	<0.001											<0.001
Total Xylenes	<0.001	<0.001											<0.001
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons	<5	<5											<5

Table I-2
Groundwater Sampling Results (ASARCO): 2004

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Location / Sampling Date	EP-51 8/17/2004	EP-51 12/10/2004	EP-52 2/18/2004	EP-52 8/17/2004	EP-52 12/10/2004	EP-53 2/18/2004	EP-53 8/17/2004	EP-53 12/10/2004	EP-54 2/18/2004	EP-54 8/17/2004	EP-54 12/10/2004	EP-56 2/18/2004	EP-56 8/17/2004
Total Metals (mg/L)													
Arsenic	0.083		0.14	0.098		19	18		12	9.1		3.7	3.3
Cadmium	0.063		0.4	0.42		0.031	0.044		0.39	0.36		0.014	0.012
Chromium	<0.01		0.012	0.016		<0.01	<0.01		<0.01	<0.01		<0.01	<0.01
Copper	0.13		0.24	0.23		0.012	0.041		0.31	0.34		0.024	<0.01
Iron	0.31		0.27	1.4		<0.1	<0.1		<0.1	0.13		0.9	0.1
Lead	<0.01		0.024	0.023		<0.001	<0.002		<0.001	<0.002		0.0025	<0.001
Selenium	0.17		0.23	0.16		0.86	1		0.13	0.12		0.026	0.026
Zinc	0.72 J		3.9	4.1		0.32	0.47 J		8.8	8.6		0.24	0.23 J
Dissolved Metals (mg/L)													
Aluminum			<0.1	<0.1					0.17	<0.1			
Antimony			0.08	0.063					0.079	0.08			
Arsenic			0.19	0.12					14	10			
Barium			0.022	0.026					0.026	0.42			
Beryllium			<0.005	<0.005					<0.005	<0.005			
Cadmium			0.44	0.39					0.42	0.35			
Calcium			530	470					490	460			
Chromium			0.012	0.011					<0.01	<0.01			
Cobalt			0.1	0.11					0.03	0.027			
Copper			0.28	0.21					0.34	0.34			
Iron			0.17	1.1					<0.1	0.18			
Lead			0.077	0.055					<0.003	<0.003			
Magnesium			330	330					170	180			
Manganese			9.2	9.5					3	2.9			
Nickel			5.3	5.9					0.15	0.14			
Phosphorus			<3	<3					<3	<3			
Potassium			21	21					260	260			
Selenium			0.2	0.17					0.11	0.12			
Silver			<0.01	<0.01					<0.01	<0.01			
Sodium			2400	2400					1400	1500			
Thallium			0.023	0.022					0.2	0.16			
Vanadium			<0.01	<0.01					<0.01	<0.01			
Zinc			3.7	3.9					9.3	8.5			
Water Quality Parameters (mg/L)													
Bromide			29	18					18	18			
pH	6.7		6.6	6.7		7.3	7.3		6.8	6.8		7.4	7.4
Specific Conductivity (umhos/cm)	19000		11000	12000		5600	6100		7900	9800		4000	4000
Total Dissolved Solids	14000		10000	11000		3800	3800		6800	7300		2700	2800
Total Organic Carbon			7.6	8.3					11	12			
Volatile Organic Compounds (mg/L)													
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): 2004

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Location / Sampling Date	EP-56 12/10/2004	EP-57 2/25/2004	EP-57 9/7/2004	EP-58 2/25/2004	EP-58 9/7/2004	EP-59 2/19/2004	EP-59 8/20/2004	EP-59 12/10/2004	EP-6 8/9/2004	EP-60 2/19/2004	EP-60 8/20/2004	EP-60 12/10/2004	EP-61 2/25/2004
Total Metals (mg/L)													
Arsenic		0.047	0.49	6.3	3.8	1.8	1.6		0.03	0.02	<0.025		0.016
Cadmium		<0.001	<0.005	0.0016	<0.005	0.0046	0.0021		<0.002	0.0027	<0.005		<0.001
Chromium		<0.01	<0.01	0.18	0.042	<0.01	0.012		<0.01	<0.01	<0.01		0.13
Copper		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01		<0.01
Iron		<0.1	0.17	3.4	2.3	0.15	0.18		<0.1	<0.1	<0.1		7.5
Lead		<0.001	<0.005	0.0062	<0.005	<0.001	<0.001		<0.002	<0.001	<0.005		<0.001
Selenium		0.013	<0.025	0.023	<0.025	0.2	0.19		<0.01	0.23	0.16		0.39
Zinc		0.052	0.15	<0.02	0.23	0.18	<0.02		<0.02	0.49	0.24		<0.02
Dissolved Metals (mg/L)													
Aluminum				<0.1	<0.1								
Antimony				<0.01	<0.01								
Arsenic				6.8	4.4								
Barium				0.028	0.4								
Beryllium				<0.005	<0.005								
Cadmium				<0.005	<0.005								
Calcium				530	480								
Chromium				<0.01	0.02								
Cobalt				0.017	<0.01								
Copper				<0.01	<0.01								
Iron				2.7	2.1								
Lead				<0.003	<0.003								
Magnesium				230	230								
Manganese				8.2	5.8								
Nickel				0.14	0.14								
Phosphorus				<3	<3								
Potassium				240	220								
Selenium				0.015	0.018								
Silver				<0.01	<0.01								
Sodium				1700	1700								
Thallium				<0.01	<0.01								
Vanadium				<0.01	0.012								
Zinc				<0.02	0.15								
Water Quality Parameters (mg/L)													
Bromide				21	22								
pH		6.8	7.1	6.7	6.7	7.3	7.4		7.4	7.2	7.2		6.8
Specific Conductivity (umhos/cm)		7000	8600	11000	13000	4400	4900		6200	6900	8800		7400
Total Dissolved Solids		5400	5700	8500	8400	3100	2800		4000	6100	6300		5400
Total Organic Carbon				9.4	31								
Volatile Organic Compounds (mg/L)													
Benzene	<0.001					<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	
Ethylbenzene	<0.001					<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	
Toluene	<0.001					<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	
Total Xylenes	<0.001					<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons	<5					<5	<5	<5		<5	<5	<5	

Table I-2
Groundwater Sampling Results (ASARCO): 2004

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Location / Sampling Date	EP-61 9/7/2004	EP-62 2/19/2004	EP-62 8/20/2004	EP-62 12/10/2004	EP-63 2/19/2004	EP-63 8/20/2004	EP-63 12/10/2004	EP-64 2/19/2004	EP-64 8/20/2004	EP-64 12/10/2004	EP-65 2/25/2004	EP-65 9/7/2004	EP-66 2/19/2004
Total Metals (mg/L)													
Arsenic	<0.025	1.3	1.4		0.038	0.035		0.075	0.08		0.013	0.019	8.3
Cadmium	<0.005	0.0024	<0.005		0.0035	0.0021		0.0014	<0.005		<0.001	<0.002	0.0023
Chromium	0.036	<0.01	0.076		<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01
Copper	<0.01	<0.01	0.02		<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01
Iron	0.84	0.11	0.43		0.22	0.25		<0.1	0.21		<0.1	0.17	0.12
Lead	<0.005	0.0016	<0.005		0.0047	<0.002		<0.001	<0.005		<0.001	<0.002	0.0015
Selenium	0.35	0.21	0.8		0.039	0.056		0.5	0.44		0.21	0.22	0.3
Zinc	<0.02	0.046	0.028		0.22	0.02		0.1	<0.02		<0.02	<0.02	0.063
Dissolved Metals (mg/L)													
Aluminum		<0.1	<0.1										
Antimony		<0.01	<0.01										
Arsenic		1.6	1.4										
Barium		0.051	0.47										
Beryllium		<0.005	<0.005										
Cadmium		<0.005	<0.005										
Calcium		170	220										
Chromium		<0.01	<0.01										
Cobalt		<0.01	<0.01										
Copper		0.013 J	0.014										
Iron		<0.1	0.1										
Lead		<0.003	<0.003										
Magnesium		62	220										
Manganese		0.017 J	0.045										
Nickel		<0.04	0.17										
Phosphorus		<3	<3										
Potassium		49	96										
Selenium		0.22	0.84										
Silver		<0.01	<0.01										
Sodium		650	1600										
Thallium		<0.01	<0.01										
Vanadium		<0.01	0.012										
Zinc		0.052	0.16										
Water Quality Parameters (mg/L)													
Bromide		2	6.2										
pH	7.1	7.4	7.3		7.2	7.2		8	7.6		7.2	7.2	7.5
Specific Conductivity (umhos/cm)	8100	3800	11000		5900	7400		7700	10000		5400	6300	6400
Total Dissolved Solids	5300	2700	6800		4300	4400		6400	6600		4000	3800	5500
Total Organic Carbon		3.8	12										
Volatile Organic Compounds (mg/L)													
Benzene		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
Ethylbenzene		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
Toluene		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
Total Xylenes		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons		<5	<5	<5	<5	<5	<5	<5	<5	<5			<5

Table I-2
Groundwater Sampling Results (ASARCO): 2004

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Location / Sampling Date	EP-66 8/20/2004	EP-66 12/10/2004	EP-67 2/16/2004	EP-67 8/10/2004	EP-68 2/16/2004	EP-68 8/10/2004	EP-7 2/24/2004	EP-7 8/9/2004	EP-70 2/16/2004	EP-70 8/11/2004	EP-71 2/16/2004	EP-71 8/10/2004	EP-72 2/16/2004
Total Metals (mg/L)													
Arsenic	9.5		0.016	0.011	0.012	<0.01	0.043	0.058	0.65	0.62	0.19	0.18	0.15
Cadmium	<0.005		0.0014	<0.001	<0.001	<0.002	<0.001	<0.001	0.0085	0.0088	0.0013	<0.002	0.0069
Chromium	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.011		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.16		<0.1	<0.1	<0.1	<0.1	0.6	1.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.005		<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001
Selenium	0.25		0.073	0.059	0.28	0.26	<0.005	<0.005	0.23	0.18	0.25	0.21	2.2
Zinc	<0.02		0.036	0.021	0.029	<0.02	<0.02	<0.02	0.12	0.11	0.024	<0.02	0.094
Dissolved Metals (mg/L)													
Aluminum													
Antimony													
Arsenic													
Barium													
Beryllium													
Cadmium													
Calcium													
Chromium													
Cobalt													
Copper													
Iron													
Lead													
Magnesium													
Manganese													
Nickel													
Phosphorus													
Potassium													
Selenium													
Silver													
Sodium													
Thallium													
Vanadium													
Zinc													
Water Quality Parameters (mg/L)													
Bromide													
pH	7.2		7.1	7	7.2	7.1	7.6	7.5	7.2	7.1	7.1	7.1	7.1
Specific Conductivity (umhos/cm)	850		4000	4700	4400	5500	2600	3000	5900	6800	5600	6600	5200
Total Dissolved Solids	6200		3300	3300	3400	4000	1600	1700	4800	4800	5000	4800	4200
Total Organic Carbon													
Volatile Organic Compounds (mg/L)													
Benzene	<0.001	<0.001											
Ethylbenzene	<0.001	<0.001											
Toluene	<0.001	<0.001											
Total Xylenes	<0.001	<0.001											
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons	<5	<5											

Table I-2
Groundwater Sampling Results (ASARCO): 2004

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Location / Sampling Date	EP-72 8/11/2004	EP-73 2/18/2004	EP-73 8/17/2004	EP-75 2/18/2004	EP-75 8/16/2004	EP-76 2/18/2004	EP-76 8/16/2004	EP-77 2/17/2004	EP-77 8/13/2004	EP-78 2/20/2004	EP-78 8/19/2004	EP-79 2/23/2004	EP-79 8/19/2004
Total Metals (mg/L)													
Arsenic	0.12	0.026	0.031	17	19	0.21	0.2	3.3	3.2	2.7	3	0.012	0.011
Cadmium	0.0041	0.0066	0.0063	0.014	0.016	<0.001	<0.001	0.0027	0.005	<0.001	0.001	<0.001	0.0012
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	0.031	0.035	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.11	<0.1	<0.1	0.12	0.21	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.002	<0.001	<0.001	0.0018	<0.01	0.0046	0.0028	0.0024	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium	2.2	0.85	0.75	4.6	4.2	0.1	0.1	0.038	0.054	0.14	0.44 J	0.088	0.066 J
Zinc	0.049	0.29	0.047 J	0.14	0.11	0.081	0.064	0.25	0.16	0.17	0.15	0.18	<0.02
Dissolved Metals (mg/L)													
Aluminum				<0.1	<0.1			<0.1	<0.1				
Antimony				<0.01	<0.01			<0.01	<0.01				
Arsenic				18	19			3.7	3.6				
Barium				0.037	0.038			0.024	0.13				
Beryllium				<0.005	<0.005			<0.005	<0.005				
Cadmium				<0.005	<0.005			<0.005	<0.005				
Calcium				410	410			120	130				
Chromium				<0.01	<0.01			<0.01	<0.01				
Cobalt				<0.01	0.011			<0.01	<0.01				
Copper				0.032	0.036			<0.01	<0.01				
Iron				<0.1	0.11			<0.1	<0.1				
Lead				<0.003	<0.003			<0.003	<0.003				
Magnesium				350	350			38	39				
Manganese				1.5	1.6			0.046	0.024				
Nickel				<0.04	<0.04			<0.04	<0.04				
Phosphorus				<3	<3			<3	<3				
Potassium				690	720			18	21				
Selenium				4.1	4.6			0.032	0.053				
Silver				<0.01	<0.01			<0.01	<0.01				
Sodium				3600	3700			790	850				
Thallium				0.12	0.12			<0.01	<0.01				
Vanadium				0.13	0.12			0.053	0.045				
Zinc				0.2	0.1			0.036	0.037				
Water Quality Parameters (mg/L)													
Bromide				6.3	5.5			2.7	2.6				
pH	7	7.1	7.2	7	7.1	7.4	7.4	7.6	7.4	7.7	7.7	7.8	7.8
Specific Conductivity (umhos/cm)	5900	5200	5800	16000	19000	4400	5100	4100	4600	3600	3000	5000	4400
Total Dissolved Solids	4300	4200	4300	16000	17000	3200	3200	3000	3100	2400	1600	3000	2600
Total Organic Carbon				11	10			4.5	4				
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Groundwater Sampling Results (ASARCO): 2004

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Location / Sampling Date	EP-80 2/19/2004	EP-80 8/23/2004	EP-81 2/19/2004	EP-81 8/23/2004	EP-82 2/23/2004	EP-82 8/19/2004	EP-83 2/20/2004	EP-83 8/19/2004	EP-84 2/20/2004	EP-84 8/18/2004	EP-85 2/19/2004	EP-85 8/23/2004	EP-86 2/20/2004
Total Metals (mg/L)													
Arsenic	0.033	0.028	0.53	0.13	0.012	0.011	0.0087	0.0099	0.027	0.047	1.7	2	0.012
Cadmium	<0.001	0.0013	0.0012	0.0019	<0.001	<0.001	<0.001	<0.001	0.0043	0.0022	<0.001	0.0011	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	0.021	0.022	<0.01	<0.01	<0.01
Iron	<0.1	<0.1	0.23	0.14	<0.1	<0.1	0.12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.001	<0.001	0.0022	<0.001	<0.001	<0.001	<0.001	<0.001	0.029	0.018	<0.001	<0.001	<0.001
Selenium	0.029	<0.005	0.22	0.22	0.11	0.087 J	0.042	0.04 J	0.025	0.015 J	0.14	0.18	0.029
Zinc	0.2	<0.02 UJ	0.057	0.032 J	<0.02	<0.02	0.032	<0.02	0.055	0.02	<0.02	<0.02 UJ	0.022
Dissolved Metals (mg/L)													
Aluminum			<0.1	<0.1	<0.1	<0.1					<0.1	<0.1	
Antimony			<0.01	0.017	<0.01	<0.01					0.044	0.056	
Arsenic			0.6	0.12	<0.015	<0.015					2.1	2.2	
Barium			0.046	0.6	0.032	0.58					0.046	0.57	
Beryllium			<0.005	<0.005	<0.005	<0.005					<0.005	<0.005	
Cadmium			<0.005	<0.005	<0.005	<0.005					<0.005	<0.005	
Calcium			130	150	180	52					110	62	
Chromium			<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	
Cobalt			<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	
Copper			<0.01 UJ	<0.01	<0.01	<0.01					<0.01 UJ	<0.01	
Iron			<0.1	<0.1	<0.1	<0.1					<0.1	<0.1	
Lead			<0.003	<0.003	<0.003	<0.003					<0.003	<0.003	
Magnesium			55	57	84	31					50	29	
Manganese			0.045 J	0.018	0.1	0.022					<0.01 UJ	<0.01	
Nickel			<0.04	<0.04	<0.04	<0.04					<0.04	<0.04	
Phosphorus			<3	<3	<3	<3					<3	<3	
Potassium			19	19	26	16					29	22	
Selenium			0.22	0.21	0.11	0.094					0.15	0.18	
Silver			<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	
Sodium			350	230	760	490					580	470	
Thallium			<0.01	<0.01	<0.01	<0.01					0.022	<0.01	
Vanadium			0.032	0.015	0.018	0.024					0.064	0.07	
Zinc			0.053	0.16	0.031	0.14					0.026	0.1	
Water Quality Parameters (mg/L)													
Bromide			0.76	0.31	2.6	0.58					1.7	0.93	
pH	7.3	7.4	7.7	7.2	7.3	7.5	7.7	7.6	7.4	7.6	7.4	7.6	7.8
Specific Conductivity (umhos/cm)	5100	5200	2500	2600	5300	3100	3900	4900	3200	2200	3300	3100	2700
Total Dissolved Solids	4000	3100	1700	1600	3300	1600	2500	2600	2300	1200	2300	1700	1700
Total Organic Carbon			2.5	5.5	3.9 J	5.5					3.1	3.4	
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Location / Sampling Date	EP-86 8/19/2004	EP-88 2/17/2004	EP-88 8/13/2004	EP-89 2/16/2004	EP-89 8/10/2004	EP-90 2/17/2004	EP-90 8/11/2004	EP-93 2/20/2004	EP-93 8/18/2004	EP-94 2/20/2004	EP-94 8/18/2004	EP-95 2/20/2004	EP-95 8/19/2004
Total Metals (mg/L)													
Arsenic	0.007	0.037	0.014	0.0098	0.0063	0.2	0.19	0.012	0.03	0.011	0.012	0.017	0.014
Cadmium	<0.001	0.0023	0.0025	0.0014	<0.001	0.023	0.022	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.001	<0.001	<0.001	0.0015	0.0035	<0.001	<0.001	<0.001	<0.001	0.0016	<0.001	<0.001	<0.001
Selenium	0.025 J	0.11	0.1	0.024	0.018	0.35	0.35	0.034	0.03 J	0.026	0.023 J	0.032	0.029 J
Zinc	<0.02	0.19	0.24	0.032	0.026	0.18	0.16	0.26	0.13	0.047	0.028	0.024	<0.02
Dissolved Metals (mg/L)													
Aluminum												<0.1	<0.1
Antimony												<0.01	<0.01
Arsenic												<0.015	0.011
Barium												0.023	0.022
Beryllium												<0.005	<0.005
Cadmium												<0.005	<0.005
Calcium												42	36
Chromium												<0.01	<0.01
Cobalt												<0.01	<0.01
Copper												<0.01	<0.01
Iron												<0.1	<0.1
Lead												<0.003	<0.003
Magnesium												61	62
Manganese												<0.01	<0.01
Nickel												<0.04	<0.04
Phosphorus												<3	<3
Potassium												<3	<3
Selenium												0.031	0.027
Silver												<0.01	<0.01
Sodium												630	640
Thallium												<0.01	<0.01
Vanadium												0.028	0.027
Zinc												0.026	0.022
Water Quality Parameters (mg/L)													
Bromide												2.4	2.2
pH	7.8	7.6	7.4	7.3	7.2	7.4	7.2	7.4	7.5	7.5	7.4	7.9	7.9
Specific Conductivity (umhos/cm)	3400	4300	4800	3100	3800	4400	4800	4400	5400	4500	5600	3600	4200
Total Dissolved Solids	1700	3100	3100	2100	2200	3400	3400	3000	3100	3000	3100	2300	2300
Total Organic Carbon												2.5	3.3
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Location Sampling Date	EP-96 2/20/2004	EP-97 2/20/2004	EP-97 8/19/2004	EP-98 2/20/2004	EP-98 8/19/2004	MW-1 9/21/2004	MW-2 9/21/2004	MW-3 9/21/2004	MW-5 9/21/2004
Total Metals (mg/L)									
Arsenic	0.011	0.1	0.27	0.019	0.023	1.7	0.31	1.5	0.033
Cadmium	<0.001	0.0034	0.0082	0.0015	0.0024	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.097	0.073	0.012	<0.01	0.016	0.01	<0.01	<0.01
Iron	<0.1	0.22	0.48	0.14	<0.1	<0.1	<0.1	0.42	0.25
Lead	<0.001	0.023	<0.021 UJ	0.0044	<0.0011 UJ	0.005	0.0028	0.0014	0.0029
Selenium	0.028	0.024	<0.005 UJ	0.32	0.2 J	0.18	0.017	<0.005	0.021
Zinc	0.24	0.076	0.24	0.05	0.026	0.032	<0.02	<0.02	<0.02
Dissolved Metals (mg/L)									
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Nickel									
Phosphorus									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Water Quality Parameters (mg/L)									
Bromide									
pH	7.4	7.7	7.4	7.8	7.6	7.4	7.5	7.5	7.3
Specific Conductivity (umhos/cm)	4600	4900	4200	5600	6800	3500	2800	4300	3400
Total Dissolved Solids	3200	3500	2200	4000	3700	2400 J	1800 J	3000 J	2300 J
Total Organic Carbon									
Volatile Organic Compounds (mg/L)									
Benzene									
Ethylbenzene									
Toluene									
Total Xylenes									
Petroleum Hydrocarbons (mg/L)									
Total Petroleum Hydrocarbons									

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Location / Sampling Date	EP-100 2/7/2005	EP-100 10/13/2005	EP-101 2/2/2005	EP-101 8/30/2005	EP-102 2/2/2005	EP-102 8/30/2005	EP-103 2/2/2005	EP-103 8/31/2005	EP-104 2/2/2005	EP-104 8/31/2005
Total Metals (mg/L)										
Arsenic	0.055	<0.005	3.9	5.5	0.63	0.108 J	0.06	<0.005	0.068	0.057
Cadmium	0.011	0.006	1.5	2.72	0.17	0.195	0.021	0.037	0.0035	0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.01	0.065	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.12	<0.1	0.8	0.5	0.1	0.07	0.27	0.42	<0.1	0.24
Lead	<0.001	<0.01	0.0076	<0.01	<0.001	<0.01	0.0013	<0.01	<0.001	<0.01
Selenium	0.64	0.422	0.67	0.801	6	5.01	1.1	0.722	0.085	0.067
Zinc	0.19	0.26 J	0.49	0.43	0.056	0.05	0.022	0.02	0.27	<0.01
Water Quality Parameters (mg/L)										
pH (SU)	7.4	6.9	7	7	7.2	7.1	7.2	7.3	7.4	7.4
Specific Conductivity (umhos/cm)	11000	10800	5100	4990	4000	3300	3500	3130	4500	4030
Total Dissolved Solids	8400	9230	3500	4020	2900	2720	2600	2530	3100	3100
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-105 2/3/2005	EP-105 9/2/2005	EP-106 2/3/2005	EP-106 8/31/2005	EP-107 2/8/2005	EP-107 8/31/2005	EP-108 2/4/2005	EP-108 10/12/2005	EP-109 2/4/2005	EP-109 10/12/2005
Total Metals (mg/L)										
Arsenic	0.17	0.14	0.018	<0.005	0.067	0.008	0.8	0.75	0.018	<0.005
Cadmium	<0.001	<0.001	0.012	0.009	<0.001 UJ	0.016	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.048	0.02	<0.01	0.01	<0.01	<0.01	0.033	0.04	<0.01	<0.01
Iron	<0.1	<0.03	0.22	0.08	0.14	0.05	0.13	0.32	0.22	0.13
Lead	<0.001	<0.01	<0.001	<0.01	<0.001 UJ	<0.01	0.0012	<0.01	0.0016	<0.01
Selenium	0.031	0.019	0.13	0.097	0.52 J	0.423	0.039	0.021	0.057	0.053
Zinc	0.24	0.12	<0.02	0.02	0.029	0.03	0.035	0.05	<0.02	0.01
Water Quality Parameters (mg/L)										
pH (SU)	7.6	7.6	7.2	7.2	7.2	7.2	7.5	7.5	7.5	7.5
Specific Conductivity (umhos/cm)	4400	3580	5000	4300	5300	4860	3200	1990	3700	3630
Total Dissolved Solids	3200	3180	3900	3640	5100	4110	2200	1290	2500	2450
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-110 2/1/2005	EP-110 8/29/2005	EP-111 2/9/2005	EP-111 9/3/2005	EP-112 2/9/2005	EP-112 9/3/2005	EP-113 2/9/2005	EP-113 9/3/2005	EP-114 2/1/2005	EP-114 8/29/2005
Total Metals (mg/L)										
Arsenic	0.015	0.017	0.7	1.02	0.028	0.006	0.015	<0.005	240	220
Cadmium	0.0037	0.004	0.0017 J	<0.001	0.0016 J	<0.001	<0.001 UJ	<0.001	0.0094	0.009
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.02	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Iron	<0.1	<0.03	1.8	2.82	0.15	0.3	0.49	0.72	39	38.4
Lead	0.0012	<0.01	<0.001 UJ	<0.01	<0.001 UJ	<0.01	<0.001 UJ	<0.01	<0.001	<0.01
Selenium	0.017	0.076	0.0088 J	<0.005	0.013 J	0.024	<0.005 UJ	<0.005	0.021	0.023
Zinc	0.022	0.03	0.041 J	0.03	<0.02 UJ	<0.01	<0.02 UJ	<0.01	5.1	2.69
Water Quality Parameters (mg/L)										
pH (SU)	7.4	7.3	7.1	7.2	7.2	7.3	7.4	7.4	6.6	6.6
Specific Conductivity (umhos/cm)	3100	3740	6400	5080	6500	5200	4000	3440	8200	6960
Total Dissolved Solids	2200	2790	4800	4720	4500	4410	2700	2700	7200	6510
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-116 2/1/2005	EP-116 8/29/2005	EP-117 2/1/2005	EP-117 8/29/2005	EP-119 2/8/2005	EP-119 9/5/2005	EP-12 2/10/2005	EP-12 9/2/2005	EP-120 2/4/2005	EP-120 10/12/2005
Total Metals (mg/L)										
Arsenic	0.6	0.034	3.8	4.25	2	2.59	1.3	1.64	0.2	0.211
Cadmium	0.39	2.75	0.032	0.036	0.0034	<0.001	<0.001	<0.001	0.0013	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	3.1	26.2	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.014	<0.01
Iron	<0.1	<0.04	<0.1	<0.04	<0.1	0.04	0.33	1.45	<0.1	0.11
Lead	0.1	0.29	<0.001	<0.01	<0.001	<0.01	0.0026	<0.01	<0.001	<0.01
Selenium	0.19	0.128	0.92	0.653	0.21	0.214 J	0.05	0.039	0.052	0.013
Zinc	2.5	34.2	0.25	0.08	0.24	<0.01	0.12 J	0.1	0.25	0.18
Water Quality Parameters (mg/L)										
pH (SU)	7.1	6	7.3	7.3	7.4	7.5	7.1	7.5	7.3	7.4
Specific Conductivity (umhos/cm)	5400	3570	4600	4220	3700	2720	5600	3850	3200	2480
Total Dissolved Solids	4000	3300	3300	3300	2700	2040	4100	3230	2200	1610
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-121 2/4/2005	EP-121 10/12/2005	EP-122 2/7/2005	EP-122 9/5/2005	EP-123 2/7/2005	EP-123 10/12/2005	EP-124 2/3/2005	EP-124 9/2/2005	EP-125 2/3/2005	EP-125 10/12/2005
Total Metals (mg/L)										
Arsenic	0.38	0.446	1.9	1.95	1.3	1.56	6.9	5.6	0.025	<0.005
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0053	0.005	0.013	0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.028	0.02	0.039	0.03
Iron	<0.1	0.07	<0.1	0.21	<0.1	0.08	0.37	0.64	<0.1	<0.05
Lead	<0.001	<0.01	<0.001	<0.01	<0.001	<0.01	0.0082	0.01	<0.001	<0.01
Selenium	0.031	0.028	0.16	0.106 J	0.055	0.061	<0.005	<0.005	0.38	0.417
Zinc	0.11	0.11	0.084	<0.01	<0.02	0.08	0.26	0.03 J	4.6	3.77
Water Quality Parameters (mg/L)										
pH (SU)	7.5	7.6	7.8	7.5	7.7	7.7	7.3	7.5	6.7	6.8
Specific Conductivity (umhos/cm)	3100	2660	2300	2380	3100	3040	4500	3720	8700	8260
Total Dissolved Solids	2100	1710	1500	1830	2100	1990	3100	3070	7400	7540
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location Sampling Date	EP-126 2/3/2005	EP-126 10/12/2005	EP-127 2/9/2005	EP-127 9/3/2005	EP-128 2/9/2005	EP-128 9/3/2005	EP-129 2/4/2005	EP-129 10/10/2005	EP-13 2/2/2005	EP-13 8/30/2005
Total Metals (mg/L)										
Arsenic	0.024	<0.03	2.8	2.49	0.74	0.764	0.014	0.008	23	13
Cadmium	0.013	<0.001	0.002 J	<0.001	<0.001 UJ	<0.001	0.0026	0.004	0.38	0.225
Chromium	0.016	0.11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02
Iron	0.14	0.12	0.46	0.21	0.76	0.59	<0.1	0.07	<0.1	0.22
Lead	0.0011	<0.01	<0.001 UJ	<0.01	0.0017 J	<0.01	<0.001	<0.01	0.0024	0.01
Selenium	0.46	0.678	0.0085 J	<0.005	0.0071 J	<0.005	0.036	0.028	5.1	2.21
Zinc	0.022	0.03	<0.02 UJ	<0.01	<0.02 UJ	0.02	0.24	0.2	0.29	0.02
Water Quality Parameters (mg/L)										
pH (SU)	7.2	7.3	7.1	7.1	7.8	7.5	7.3	7.3	7.2	7.2
Specific Conductivity (umhos/cm)	4800	4880	5800	4250	6200	6020	3700	3400	9200	5000
Total Dissolved Solids	3600	3810	4300	3480	3700	4580	2700	<2600 UJ	7100	4340
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-130 2/3/2005	EP-130 10/13/2005	EP-131 2/3/2005	EP-131 10/13/2005	EP-132 2/8/2005	EP-132 9/5/2005	EP-133 2/9/2005	EP-133 9/3/2005	EP-134 2/9/2005	EP-134 9/3/2005
Total Metals (mg/L)										
Arsenic	0.6	0.348	0.91	1.13	2	2.3	2	2.6	0.55	0.889
Cadmium	0.024	<0.001	0.0036	0.002	0.0011	<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
Iron	1.4	<0.05	<0.1	0.45	<0.1	0.36	2.3	2.64	<0.1	0.35
Lead	<0.001	<0.01	<0.001	<0.01	<0.001	<0.01	0.0011 J	<0.01	<0.001 UJ	<0.01
Selenium	0.31	0.232	0.12	0.092	0.24	0.104 J	0.014 J	<0.005	0.015 J	<0.005
Zinc	0.3	0.26 J	0.26	0.01 J	0.16	<0.01	0.022 J	0.02	0.16 J	<0.01
Water Quality Parameters (mg/L)										
pH (SU)	6.7	6.7	7.3	7.4	7.4	7.5	7.2	7.2	7.3	7.3
Specific Conductivity (umhos/cm)	11000	9540	4500	4530	4200	2930	6000	4810	4100	4670
Total Dissolved Solids	9000	8170	3300	3330	3100	2260	4500	4410	3200	4130
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-135 2/8/2005	EP-135 9/5/2005	EP-136 2/9/2005	EP-136 9/3/2005	EP-137 2/9/2005	EP-137 9/3/2005	EP-14 2/2/2005	EP-14 8/30/2005	EP-15 2/2/2005	EP-15 8/31/2005
Total Metals (mg/L)										
Arsenic	1.8	2.42	0.12	0.153	0.14	0.284	1.3	1.05	0.022	0.006
Cadmium	0.0038	<0.001	0.0019 J	<0.001	0.018 J	0.007	<0.001	0.001	0.0085	0.013
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
Iron	<0.1	<0.07	0.81	1.78	<0.1	0.16	<0.1	0.07	<0.1	<0.04
Lead	<0.001	<0.01	<0.001 UJ	<0.01	<0.001 UJ	<0.01	0.0012	<0.01	<0.001	<0.01
Selenium	0.24	0.142 J	0.0094 J	<0.005	0.083 J	0.261	0.42	0.392	0.14	0.102
Zinc	0.16	0.13	<0.02 UJ	<0.01	0.2 J	0.13	<0.02	0.02	0.25	0.11
Water Quality Parameters (mg/L)										
pH (SU)	7.5	7.3	7.1	7.2	7.4	7.4	7.1	7	7.2	7.3
Specific Conductivity (umhos/cm)	8000	6870	5900	4430	5000	4060	5600	4840	4700	4020
Total Dissolved Solids	6400	6340	4200	3800	3600	3440	4300	4860	3400	3180
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-20 2/1/2005	EP-20 8/29/2005	EP-21 2/10/2005	EP-21 9/2/2005	EP-22 2/3/2005	EP-22 10/12/2005	EP-23 2/8/2005	EP-23 6/28/2005	EP-23 10/13/2005	EP-23 12/21/2005
Total Metals (mg/L)										
Arsenic	1.3	1.04	0.018	0.025	5.2	12.2	0.95		2.18	
Cadmium	0.17	0.1	<0.001	<0.001	0.022	0.008	<0.001 UJ		<0.001	
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
Copper	0.077	0.01	<0.01	<0.01	0.17	0.14	<0.01		<0.01	
Iron	<0.1	0.14	0.17	3.9	0.45	<0.05	0.67		1.86	
Lead	<0.001	<0.01	<0.001	<0.01	0.0018	<0.01	<0.001 UJ		<0.01	
Selenium	0.31	0.155	0.0091 J	<0.005	1.4	1.65	0.012 J		0.013	
Zinc	0.062	0.02	0.069 J	0.08	0.82	0.85	0.18		0.13 J	
Water Quality Parameters (mg/L)										
pH (SU)	6.9	7	7.6	7.8	7	7	7.4		7.3	
Specific Conductivity (umhos/cm)	7100	5650	2500	2230	9900	9720	4600		4780	
Total Dissolved Solids	5600	4860	1600	1470	8800	9100	2000		2620	
Volatile Organic Compounds (mg/L)										
Benzene							0.0086	0.0067	0.0076	0.0073
Ethylbenzene							0.0049	0.0022	0.0046	0.0042
Toluene							<0.001	<0.001	<0.001	<0.001
Total Xylenes							<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons							<5	<5	<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-24 2/10/2005	EP-24 9/2/2005	EP-25 2/10/2005	EP-25 9/2/2005	EP-26 2/7/2005	EP-26 6/27/2005	EP-26 10/13/2005	EP-26 12/20/2005	EP-29 2/1/2005	EP-29 8/29/2005
Total Metals (mg/L)										
Arsenic	0.71	0.571	3.5	17.6	0.13		0.095		0.23	0.224
Cadmium	<0.001	<0.001	<0.001	0.009	0.19		0.241		<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		0.02	0.1
Copper	<0.01	<0.01	<0.01	0.31	<0.01		<0.01		0.085	<0.01
Iron	0.39	0.66	1.7	8.47	<0.1		0.34		0.28	0.99
Lead	<0.001	<0.01	0.0011	0.15	<0.001		<0.01		<0.001	<0.01
Selenium	0.013 J	<0.005	0.042	0.078	1.6		1.11		0.25	0.199
Zinc	<0.02 UJ	0.14	0.27 J	0.13	0.79		0.93		<0.02	<0.01
Water Quality Parameters (mg/L)										
pH (SU)	7.1	7.2	7	7.3	7.2		7.3		7.7	7.5
Specific Conductivity (umhos/cm)	5000	3710	4600	3690	5300		5080		4200	3940
Total Dissolved Solids	3000	2780	2700	2550	4100		3940		2800	2820
Volatile Organic Compounds (mg/L)										
Benzene					<0.001	<0.001	<0.001	<0.001		
Ethylbenzene					<0.001	<0.001	<0.001	<0.001		
Toluene					<0.001	<0.001	<0.001	<0.001		
Total Xylenes					<0.001	<0.001	<0.001	<0.001		
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons					<5	<5	<5	<5		

Table I-2
Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-35 2/1/2005	EP-35 8/29/2005	EP-4 2/1/2005	EP-4 8/29/2005	EP-43 2/10/2005	EP-43 9/2/2005	EP-5 2/1/2005	EP-5 8/29/2005	EP-51 2/7/2005	EP-51 6/28/2005
Total Metals (mg/L)										
Arsenic	0.36	0.518	0.039	0.124	0.5	0.619	0.031	0.029	0.057	
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.052	
Chromium	0.053	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.051	
Copper	0.1	0.43	<0.01	<0.01	<0.01	<0.01	0.028	0.01	0.051	
Iron	0.4	0.18	0.96	2.33	0.37	0.32	<0.1	0.23	3.1	
Lead	0.0021	<0.01	<0.001	<0.01	<0.001	<0.01	0.0037	<0.01	<0.001	
Selenium	0.5	0.5	<0.005	<0.005	0.018 J	0.014	<0.005	<0.005	0.19	
Zinc	<0.02	0.09	<0.02	<0.01	0.15 J	0.13	<0.02	0.01	0.82	
Water Quality Parameters (mg/L)										
pH (SU)	7	7	7.7	7.4	7	7.1	7.7	7.9	6.8	
Specific Conductivity (umhos/cm)	6300	4870	3300	3500	5900	3480	3600	3500	17000	
Total Dissolved Solids	5000	4110	2100	2490	3800	2580	2300	2350	11000	
Volatile Organic Compounds (mg/L)										
Benzene									<0.001	<0.001
Ethylbenzene									<0.001	<0.001
Toluene									<0.001	<0.001
Total Xylenes									<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons									<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-51 10/13/2005	EP-51 12/20/2005	EP-52 2/7/2005	EP-52 6/28/2005	EP-52 10/13/2005	EP-52 12/21/2005	EP-53 2/8/2005	EP-53 6/28/2005	EP-53 10/13/2005	EP-53 12/21/2005
Total Metals (mg/L)										
Arsenic	0.102		0.067		0.109		27		29.4	
Cadmium	0.045		0.36		0.374		0.27 J		0.252	
Chromium	<0.01		0.014		0.02		<0.01		<0.01	
Copper	0.06		0.18		0.21		0.011		<0.01	
Iron	0.4		0.57		0.6		<0.1		<0.07	
Lead	<0.01		0.0085		0.04		<0.001 UJ		<0.01	
Selenium	0.122		0.19		0.161		1.5 J		2.12	
Zinc	0.43 J		4.4		3.01		0.88		0.81	
Water Quality Parameters (mg/L)										
pH (SU)	6.9		6.4		6.4		7.3		7.2	
Specific Conductivity (umhos/cm)	13800		12000		11000		6000		6140	
Total Dissolved Solids	10500		10000		10300		4300		4690	
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-54 2/7/2005	EP-54 6/28/2005	EP-54 10/13/2005	EP-54 12/21/2005	EP-56 2/7/2005	EP-56 6/27/2005	EP-56 10/13/2005	EP-56 12/20/2005	EP-57 2/9/2005	EP-57 9/2/2005
Total Metals (mg/L)										
Arsenic	9.4		11		3.6		3.58		0.036	0.206
Cadmium	0.35		0.322		0.0013		0.001		<0.001	<0.001
Chromium	<0.01		<0.01		<0.01		<0.01		<0.01	<0.01
Copper	0.33		0.3		<0.01		<0.01		<0.01	<0.01
Iron	<0.1		<0.05		0.11		0.04		<0.1	0.71
Lead	<0.001		<0.01		<0.001		<0.01		<0.001	<0.01
Selenium	0.097		0.11		0.038		0.041		0.03	0.006
Zinc	8.3		10.1		0.24		0.19 J		0.029 J	0.03 J
Water Quality Parameters (mg/L)										
pH (SU)	6.8		6.9		7.4		7.4		6.9	7.3
Specific Conductivity (umhos/cm)	10000		9700		4100		4200		7000	5750
Total Dissolved Solids	7900		8410		2900		2970		5800	5790
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	0.0052	0.0044	<0.001	<0.001	<0.001	<0.001		
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5	<5	<5		

Table I-2
Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-58 2/9/2005	EP-58 9/2/2005	EP-59 2/8/2005	EP-59 6/27/2005	EP-59 9/5/2005	EP-6 2/1/2005	EP-6 8/29/2005	EP-60 2/8/2005	EP-60 6/27/2005	EP-60 9/5/2005
Total Metals (mg/L)										
Arsenic	4.4	4.34	1.7		1.72	0.021	0.025	0.025		<0.005
Cadmium	0.0011 J	<0.001	0.0057		<0.001	<0.001	<0.001	0.003		<0.001
Chromium	0.042	<0.01	<0.01		0.02	<0.01	<0.01	<0.01		0.19
Copper	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01		<0.01
Iron	3.9	3.53	0.14		0.11	<0.1	0.04	<0.1		1.63
Lead	<0.001 UJ	<0.01	<0.001		<0.01	<0.001	<0.01	<0.001		<0.01
Selenium	0.042 J	0.016	0.2		0.198 J	0.0065	0.006	0.2		0.096 J
Zinc	<0.02 UJ	0.18	0.07		<0.01	<0.02	<0.01	0.18		<0.01
Water Quality Parameters (mg/L)										
pH (SU)	6.6	6.7	7.4		7.2	7.6	7.6	7.2		7.1
Specific Conductivity (umhos/cm)	11000	8020	4000		3610	5200	4560	7600		6140
Total Dissolved Solids	8100	8480	2800		2770	3600	3390	6500		6140
Volatile Organic Compounds (mg/L)										
Benzene			<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Ethylbenzene			<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Toluene			<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Total Xylenes			<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons			<5	<5	<5			<5	<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-60 12/20/2005	EP-61 2/9/2005	EP-61 9/2/2005	EP-62 2/8/2005	EP-62 6/27/2005	EP-62 9/5/2005	EP-62 12/20/2005	EP-63 2/8/2005	EP-63 6/27/2005	EP-63 9/5/2005
Total Metals (mg/L)										
Arsenic		0.018	<0.005	1.2		1.51		0.04		0.013
Cadmium		<0.001 UJ	<0.001	0.0033		<0.001		0.0041		<0.001
Chromium		0.16	0.02	0.021		0.02		<0.01		<0.01
Copper		<0.01	<0.01	<0.01		<0.01		<0.01		<0.01
Iron		1.1	0.51	0.17		0.07		<0.1		0.27
Lead		<0.001 UJ	<0.01	<0.001		<0.01		<0.001		<0.01
Selenium		0.42 J	0.227	0.25		0.253 J		0.049		0.018 J
Zinc		<0.02 UJ	0.03 J	0.033		<0.01		0.19		<0.01
Water Quality Parameters (mg/L)										
pH (SU)		7	7.1	7.4		7.4		7.2		7.1
Specific Conductivity (umhos/cm)		6400	5300	3900		3740		6100		5060
Total Dissolved Solids		5100	5120	2800		2970		4500		4350
Volatile Organic Compounds (mg/L)										
Benzene	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5			<5	<5	<5	<5	<5	<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-63 12/20/2005	EP-64 2/8/2005	EP-64 6/27/2005	EP-64 9/5/2005	EP-64 12/20/2005	EP-65 2/9/2005	EP-65 9/2/2005	EP-66 2/8/2005	EP-66 6/27/2005	EP-66 9/5/2005
Total Metals (mg/L)										
Arsenic		0.14		0.015		0.013	<0.005	9.4		13.7
Cadmium		0.0037		<0.001		<0.001	<0.001	0.0014		<0.001
Chromium		<0.01		<0.01		<0.01	<0.01	<0.01		<0.01
Copper		<0.01		0.03		<0.01	<0.01	<0.01		0.01
Iron		0.13		3.2		<0.1	0.12	0.12		1.16
Lead		<0.001		<0.01		<0.001	<0.01	<0.001		<0.01
Selenium		0.54		0.301 J		0.21	0.121	0.34		0.336 J
Zinc		0.027		0.02		<0.02 UJ	0.01 J	<0.02		0.01
Water Quality Parameters (mg/L)										
pH (SU)		8.2		7.3		7.2	7.3	7.5		7.2
Specific Conductivity (umhos/cm)		7300		7760		5100	4270	6100		7670
Total Dissolved Solids		5900		7630		3800	3850	5000		7900
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5			<5	<5	<5

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Location Sampling Date	EP-66 12/20/2005	EP-67 2/1/2005	EP-67 8/29/2005	EP-68 2/1/2005	EP-68 8/29/2005	EP-7 8/29/2005	EP-70 2/2/2005	EP-70 8/30/2005	EP-71 2/2/2005	EP-71 8/30/2005
Total Metals (mg/L)										
Arsenic		0.017	0.012	0.014	<0.005	0.071	0.53	0.56	0.18	0.131 J
Cadmium		0.0028	0.003	0.0017	0.001	<0.001	0.0068	0.006	0.0021	0.002
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
Iron		<0.1	<0.03	0.22	0.18	1.62	<0.1	0.03	<0.1	<0.03
Lead		<0.001	<0.01	<0.001	<0.01	<0.01	<0.001	<0.01	<0.001	<0.01
Selenium		0.055	0.045	0.24	0.159	<0.005	0.17	0.146 J	0.2	0.127 J
Zinc		0.02	0.02	<0.02	<0.01	<0.01	0.09	0.08	<0.02	0.02
Water Quality Parameters (mg/L)										
pH (SU)		7	7.1	7.2	7.3	7.4	7.1	7.1	7.1	7.1
Specific Conductivity (umhos/cm)		4100	3710	4600	3660	2790	6100	4780	6100	4960
Total Dissolved Solids		3300	3160	3400	2830	1930	4600	4560	4700	4820
Volatile Organic Compounds (mg/L)										
Benzene	<0.001									
Ethylbenzene	<0.001									
Toluene	<0.001									
Total Xylenes	<0.001									
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5									

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Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-72 2/2/2005	EP-72 8/30/2005	EP-73 2/3/2005	EP-73 10/13/2005	EP-75 2/3/2005	EP-75 8/31/2005	EP-76 2/3/2005	EP-76 8/31/2005	EP-77 2/3/2005	EP-77 8/31/2005
Total Metals (mg/L)										
Arsenic	0.16	<0.005 UJ	0.046	<0.03	25	27	0.29	0.255	4.5	3.89
Cadmium	0.0052	0.006	0.0031	0.001	0.0095	0.009	0.0018	0.002	0.0046	0.004
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.01	<0.01	0.01	0.016	0.03	<0.01	0.01	<0.01	<0.01
Iron	<0.1	0.04	<0.1	<0.04	0.43	0.15	<0.1	<0.03	<0.1	0.54
Lead	<0.001	<0.01	<0.001	<0.01	0.0021	<0.01	0.0048	<0.01	<0.001	<0.01
Selenium	2.9	2.99	0.91	0.605	2.3	1.41	0.088	0.147	0.077	0.072
Zinc	0.043	0.05	0.26	0.03 J	0.079	0.02	0.059	0.05	0.14	<0.01
Water Quality Parameters (mg/L)										
pH (SU)	7.1	7.1	7.2	7.3	7.1	7.2	7.4	7.4	7.4	7.3
Specific Conductivity (umhos/cm)	5800	5350	5500	4950	9800	7860	4100	3980	4400	3920
Total Dissolved Solids	4500	4620	4200	3860	8200	7010	2900	2900	3000	2990
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-78 2/7/2005	EP-78 10/12/2005	EP-79 2/7/2005	EP-79 10/12/2005	EP-80 2/7/2005	EP-80 9/5/2005	EP-81 2/7/2005	EP-81 9/5/2005	EP-82 2/4/2005	EP-82 10/12/2005
Total Metals (mg/L)										
Arsenic	2.7	2.72	0.013	<0.005	0.036	0.01	0.3	0.092	0.011	<0.005
Cadmium	0.001	<0.001	0.0012	<0.001	0.0018	<0.001	0.0015	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
Iron	0.18	0.05	0.12	0.21	<0.1	0.15	0.22	0.1	0.11	0.08
Lead	0.0014	<0.01	<0.001	<0.01	<0.001	<0.01	<0.001	<0.01	<0.001	<0.01
Selenium	0.19	0.292	0.078	0.075	0.034	0.013 J	0.14	0.054 J	0.043	0.064
Zinc	<0.02	0.1	<0.02	<0.01	0.24	<0.01	<0.02	0.01	<0.02	<0.01
Water Quality Parameters (mg/L)										
pH (SU)	7.7	7.8	7.7	7.7	7.3	7.3	7.3	7.4	7.2	7.3
Specific Conductivity (umhos/cm)	3000	2050	4100	4120	5600	4320	1900	1170	2400	1980
Total Dissolved Solids	2000	1220	2700	2780	4300	3700	1400	858	1600	1290
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-83 2/4/2005	EP-83 10/12/2005	EP-84 2/4/2005	EP-84 10/10/2005	EP-85 2/7/2005	EP-86 2/7/2005	EP-86 10/12/2005	EP-88 2/3/2005	EP-88 8/31/2005	EP-89 2/1/2005
Total Metals (mg/L)										
Arsenic	0.0094	<0.005	0.033	0.035	2.2	0.012	<0.005	0.026	0.009	0.012
Cadmium	<0.001	<0.001	0.0048	0.006	<0.001	<0.001	<0.001	0.007	0.009	0.0027
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	0.022	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	<0.1	0.14	0.16	0.12	<0.1	0.18	0.11	<0.1	<0.03	<0.1
Lead	<0.001	<0.01	0.035	0.03	<0.001	0.0016	<0.01	<0.001	<0.01	0.0014
Selenium	0.048	0.041	0.023	0.018	0.076	0.026	0.029	0.066	0.075	0.02
Zinc	0.18	0.01	0.03	0.03	<0.02	<0.02	<0.01	0.22	0.02	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	7.6	7.7	7.3	7.3	7.9	7.8	7.7	7.5	7.4	7.3
Specific Conductivity (umhos/cm)	3900	3710	2800	2580	1500	2700	2730	4700	4080	3100
Total Dissolved Solids	2600	2510	2000	<2020 UJ	960	1800	1700	3200	2920	2200
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-89 8/29/2005	EP-89 12/20/2005	EP-90 2/2/2005	EP-90 8/30/2005	EP-93 2/4/2005	EP-93 10/10/2005	EP-94 2/4/2005	EP-94 10/10/2005	EP-95 2/4/2005	EP-95 10/10/2005
Total Metals (mg/L)										
Arsenic	<0.005		0.21	0.134 J	0.014	0.012	0.0098	0.008	0.018	0.013
Cadmium	0.002		0.029	0.038	0.0014	0.002	0.0011	0.002	<0.001	<0.001
Chromium	<0.01		<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01		<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.03		<0.1	<0.04	<0.1	0.19	0.12	0.16	<0.1	0.29
Lead	<0.01		<0.001	<0.01	<0.001	<0.01	<0.001	<0.01	<0.001	<0.01
Selenium	0.078		0.64	0.993	0.038	0.029	0.025	0.026	0.03	0.023
Zinc	0.02		0.27	0.14	0.26	0.13	<0.02	0.01	<0.02	<0.01
Water Quality Parameters (mg/L)										
pH (SU)	7.3		7.3	7.3	7.4	7.4	7.4	7.5	7.9	7.8
Specific Conductivity (umhos/cm)	3430		5100	4600	4400	4070	4500	3990	3100	2520
Total Dissolved Solids	2560		3700	4060	3000	<2990 UJ	3100	<2950 UJ	2000	<1750 UJ
Volatile Organic Compounds (mg/L)										
Benzene		<0.001								
Ethylbenzene		<0.001								
Toluene		<0.001								
Total Xylenes		<0.001								
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons		<5								

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Groundwater Sampling Results (ASARCO): 2005

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Location / Sampling Date	EP-97 2/4/2005	EP-97 10/10/2005	EP-98 2/4/2005	EP-98 10/12/2005	MW-1 2/28/2005	MW-2 2/28/2005	MW-3 2/28/2005	MW-5 2/28/2005
Total Metals (mg/L)								
Arsenic	0.099	0.156	0.018	<0.005	1.7	0.41	1.4	0.013
Cadmium	0.0036	0.009	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.092	0.22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.19	0.11	0.16	0.05	<0.1 UJ	<0.1 UJ	0.58 J	1 J
Lead	0.0056	<0.01	0.0021	<0.01	0.0025	0.002	0.001	0.0023
Selenium	0.015	0.019	0.22	0.178	0.17	0.14	<0.005	0.023
Zinc	0.23	0.22	<0.02	0.15	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)								
pH (SU)	7.6	7.4	7.6	7.6	7.4	7.4	7.5	7.3
Specific Conductivity (umhos/cm)	4100	3180	5400	5130	3600	3600	4400	3200
Total Dissolved Solids	2900	<2330 UJ	3700	3660	2500	2400	3100	2200
Volatile Organic Compounds (mg/L)								
Benzene								
Ethylbenzene								
Toluene								
Total Xylenes								
Petroleum Hydrocarbons (mg/L)								
Total Petroleum Hydrocarbons								

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-100 2/14/2006	EP-100 8/8/2006	EP-101 2/7/2006	EP-101 7/27/2006	EP-102 2/7/2006	EP-102 7/27/2006	EP-103 2/8/2006	EP-103 7/28/2006	EP-104 2/8/2006	EP-104 7/28/2006	EP-105 2/8/2006	EP-105 8/10/2006
Total Metals (mg/L)												
Arsenic	<0.005	<0.01	5.1	5.39	0.126	0.411	<0.005	<0.01	0.069	0.065	0.127	0.111
Cadmium	0.008	0.008	3.1	2.66	0.057	0.131	0.005	0.029	<0.001	<0.001	0.001	<0.001
Chromium	0.01	0.094	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.137
Copper	0.02	0.023	0.02	0.049	0.01	0.016	0.01	0.034	<0.01	0.009	0.03	0.022
Iron	<0.03	0.321 J	0.2	0.565	0.2	0.024	0.06	0.157	0.04	0.032	0.14	0.333
Lead	<0.003	<0.005	<0.003	<0.005	0.004	<0.005	<0.003	<0.005	<0.003	<0.005	0.004	<0.005
Selenium	0.478	0.42	1.07	0.935	4.4	5.88	0.952	0.97	0.083	0.069	0.037	<0.01 UJ
Zinc	0.31	0.12	0.65	0.601 J	0.02	0.061 J	0.01	0.066	<0.01	0.015	0.07	0.083
Water Quality Parameters (mg/L)												
pH (SU)	6.9	7.24	7	6.97	7.1	7.18	7.1	7.15	7.6	7.43	7.6	7.87
Specific Conductivity (umhos/cm)	8890	11500	5500	5640	3280	3580	3800	<5460 UJ	3790	<4370 UJ	3730	4150
Total Dissolved Solids	8870	8830	4370	3845	2690	2465	3240	3960	3030	2845	3110	2830
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-106 2/8/2006	EP-106 7/28/2006	EP-107 2/8/2006	EP-107 8/10/2006	EP-108 2/9/2006	EP-108 8/14/2006	EP-109 2/9/2006	EP-109 8/14/2006	EP-110 2/7/2006	EP-110 7/26/2006	EP-111 2/10/2006	EP-112 2/10/2006
Total Metals (mg/L)												
Arsenic	<0.005	<0.01	0.009	<0.01	0.813	0.223	<0.005	0.254	0.006	<0.01 UJ	0.956	0.007
Cadmium	<0.001	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005 UJ	<0.01	<0.01
Copper	0.02	0.026	<0.01	0.009	0.02	0.025	0.01	0.064	<0.01	<0.005	0.01	<0.01
Iron	0.06	0.198	<0.03	0.03	0.07	0.054	0.12	0.116	0.09	0.02	2.27	0.13
Lead	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	0.003	<0.005	0.004	<0.005	0.004	<0.003
Selenium	0.12	0.089	0.516	0.35 J	0.042	0.026 J	0.055	0.767 J	0.019	0.05	0.024	0.017
Zinc	0.01	0.03	0.02	0.051	0.02	0.077	<0.01	0.255	<0.01	0.02	0.06 J	0.01 J
Water Quality Parameters (mg/L)												
pH (SU)	7.2	7.27	7.1	7.48	7.6	8.39	7.6	8.36	7.5	7.26	7.3	7.5
Specific Conductivity (umhos/cm)	4170	<4450 UJ	5010	5810	3110	934	3240	3820	2800	3080	5540	5000
Total Dissolved Solids	3730	3415	4500	3980	2350	582	2460	3310	2180	2250	4640	3690
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-112 8/15/2006	EP-113 2/10/2006	EP-114 2/6/2006	EP-114 7/26/2006	EP-116 2/6/2006	EP-116 7/26/2006	EP-117 2/6/2006	EP-117 7/26/2006	EP-119 2/13/2006	EP-119 8/9/2006	EP-12 2/15/2006	EP-12 8/16/2006
Total Metals (mg/L)												
Arsenic	<0.01	<0.005	249	216 J	0.104	<0.01 UJ	3.9	3.1 J	2.2	2.15	1.55	0.525
Cadmium	<0.001	<0.001	0.001	<0.001	0.417	1.81	0.035	0.024	<0.001	0.011	<0.001	0.002
Chromium	<0.01	<0.01	<0.01	<0.014 UJ	<0.01	<0.005 UJ	<0.01	<0.005 UJ	<0.01	<0.005	0.02	0.012 J
Copper	0.013	<0.01	<0.01	<0.005	1.13	19.1	<0.01	0.012	<0.01	0.012	0.02	0.014
Iron	0.325	0.52	37.7	36.1	0.04	0.286	0.04	0.117	<0.03	0.024	2.8	0.372 J
Lead	<0.005	<0.003	<0.003	0.062	0.014	<0.005	<0.003	<0.005	<0.003	<0.005	0.012	<0.005
Selenium	<0.01	0.006	0.04	<0.01	0.177	<0.01	0.774	0.708	0.162	0.178	0.124	0.038
Zinc	0.028	<0.01 UJ	1.68	6.65	1.62	14.9	0.2	0.024	0.04 J	0.061	0.02 J	0.038
Water Quality Parameters (mg/L)												
pH (SU)	8.25	7.5	6.6	6.64	6.9	5.87	7.3	7.33	7.5	7.82	7.2	8.38
Specific Conductivity (umhos/cm)	7430	3560	6590	7540	4710	3260	4020	4580	2780	3890	3890	3810
Total Dissolved Solids	5780	2690	6770	5840	4040	2700	3310	3480	2120	2380	3050	2940
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-120 2/9/2006	EP-120 8/14/2006	EP-121 2/9/2006	EP-122 2/10/2006	EP-122 8/9/2006	EP-123 2/9/2006	EP-123 8/15/2006	EP-124 2/14/2006	EP-124 8/10/2006	EP-125 2/8/2006	EP-125 7/28/2006	EP-126 2/8/2006
Total Metals (mg/L)												
Arsenic	0.241	0.21	0.435	1.78	1.86	1.15	2.19	4.71	1.81	<0.005	<0.01	<0.05
Cadmium	<0.001	0.002	<0.001	<0.001	0.002	<0.001	<0.001	0.011	0.007	0.001	0.005	0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.005	<0.01	<0.01	0.01	0.129	<0.01	<0.01	0.71
Copper	0.02	0.026	0.01	0.01	0.02	<0.01	0.005	0.09	0.052	0.07	0.052	0.02
Iron	<0.03	0.113	<0.03	<0.03	0.243	0.04	0.078	5.81	3.61	<0.05	0.291	0.03
Lead	<0.003	<0.005	<0.003	<0.003	<0.005	<0.003	<0.005	0.067	0.023	0.007	<0.005	<0.003
Selenium	0.058	0.232 J	0.027	0.166	0.218	0.072	0.051	0.009	0.233 J	0.389	0.491	0.952
Zinc	0.17	0.046	0.14	0.16 J	0.042	<0.01	0.017	0.06	0.064	1.73	2	0.03
Water Quality Parameters (mg/L)												
pH (SU)	7.4	8.42	7.4	7.6	7.83	7.7	8.61	7.4	7.86	6.8	6.91	7.3
Specific Conductivity (umhos/cm)	3260	2060	3130	2480	3390	3050	3190	3890	2190	7360	9360	4780
Total Dissolved Solids	2590	1650	2380	1860	2460	2250	2290	3100	1410	7450	7480	4520
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-126 7/28/2006	EP-127 2/10/2006	EP-128 2/10/2006	EP-128 8/15/2006	EP-129 2/9/2006	EP-129 8/14/2006	EP-13 2/7/2006	EP-13 7/27/2006	EP-130 2/13/2006	EP-130 8/8/2006	EP-131 2/13/2006	EP-131 8/8/2006
Total Metals (mg/L)												
Arsenic	<0.01	2.56	0.698	0.905	<0.005	<0.01	18.5	21.2	0.137	0.145	0.962	0.753
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.514	0.401	<0.001	<0.001	<0.001	<0.001
Chromium	0.205	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.013	0.01	<0.01	0.009	<0.01	0.009	0.02	0.02	<0.01	0.025	<0.01	0.014
Iron	0.036	0.14	0.48	0.687	<0.03	0.467	0.08	0.193	<0.05	0.306 J	<0.03	0.847 J
Lead	<0.005	<0.003	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005
Selenium	0.653	0.013	0.026	<0.01	0.032	0.026 J	3.83	4.15	0.237	0.203	0.103	0.118
Zinc	0.029	0.02 J	0.02 J	0.06	0.19	0.038	0.17	0.038 J	0.08 J	0.084	0.23 J	0.066
Water Quality Parameters (mg/L)												
pH (SU)	7.35	7.3	7.6	8.1	7.2	8.12	7.3	7.4	6.8	6.85	7.3	7.42
Specific Conductivity (umhos/cm)	<5040 UJ	4480	6830	7140	3240	3310	8080	9340	8240	9630	4040	4960
Total Dissolved Solids	3760	3460	4930	4420	2540	2660	7170	7055	8030	7300	3340	3380
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-132 2/13/2006	EP-132 8/9/2006	EP-133 2/10/2006	EP-134 2/10/2006	EP-134 8/15/2006	EP-135 2/13/2006	EP-135 8/9/2006	EP-136 2/10/2006	EP-137 2/10/2006	EP-137 8/15/2006	EP-14 2/7/2006	EP-14 7/27/2006
Total Metals (mg/L)												
Arsenic	1.78	3.02	1.87	0.73	0.811	1.9	2.85	0.038	0.127	0.158	1.19	0.849
Cadmium	0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	0.004	0.018	<0.001	<0.001
Chromium	<0.01	<0.005	<0.01	<0.01	<0.01	<0.01	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.012	<0.01	<0.01	0.023	0.01	0.02	<0.01	0.01	0.089	<0.01	0.014
Iron	<0.03	0.118	1.68	0.14	1.22	0.08	0.517	0.41	0.05	1.74	<0.05	<0.01
Lead	<0.003	<0.005	0.004	<0.003	<0.005	0.003	<0.005	<0.003	<0.003	0.032	<0.003	<0.005
Selenium	0.151	0.27	0.019	0.029	<0.01	0.152	0.172	0.018	0.122	11.1	0.482	0.329
Zinc	0.19 J	0.051	0.25 J	0.2 J	0.061	0.21 J	0.064	0.01 J	0.2 J	0.129	<0.01	0.036 J
Water Quality Parameters (mg/L)												
pH (SU)	7.5	7.77	7.3	7.4	8.19	7.3	7.55	7.2	7.4	8.18	7.2	7.12
Specific Conductivity (umhos/cm)	3670	4550	4670	4740	5550	6820	8110	5320	4600	4140	5380	5730
Total Dissolved Solids	2980	3350	3840	3990	4070	6190	5780	4190	3690	2930	4850	4240
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-15 2/8/2006	EP-15 7/28/2006	EP-20 2/6/2006	EP-20 7/26/2006	EP-21 2/15/2006	EP-21 8/16/2006	EP-22 2/8/2006	EP-22 7/28/2006	EP-23 2/14/2006	EP-23 5/16/2006	EP-23 8/8/2006	EP-23 12/20/2006
Total Metals (mg/L)												
Arsenic	<0.005	<0.01	1.14	1.17 J	0.031	<0.01	17	8.83	3.52		1.29	
Cadmium	0.001	0.008	0.083	0.109	<0.001	0.003	0.009	0.008	<0.001		<0.001	
Chromium	<0.01	<0.01	<0.01	<0.005 UJ	<0.01	1.96 J	<0.01	<0.01	<0.01		<0.005	
Copper	0.01	0.024	0.02	0.011	<0.01	0.077	0.13	0.139	0.01		0.011	
Iron	<0.03	0.106	0.09	0.01	1.63	10.7 J	<0.05	0.156	2.72		1.17 J	
Lead	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	0.004		<0.005	
Selenium	0.17	0.136	0.16	0.257	0.012	<0.01	2.33	1.39	0.016		<0.01	
Zinc	0.22	0.038	0.03	0.032	0.09 J	0.435	0.82	0.518	0.02		0.062	
Water Quality Parameters (mg/L)												
pH (SU)	7.3	7.33	7.2	6.92	7.7	8.49	7.1	7.05	7.3		7.66	
Specific Conductivity (umhos/cm)	4140	<4490 UJ	4810	6120	2340	2280	9210	10400	3990		4600	
Total Dissolved Solids	3440	3095	4280	5130	1510	1470	9910	8385	2540		2450	
Volatile Organic Compounds (mg/L)												
Benzene									0.0066	0.0077	0.006	0.0121
Ethylbenzene									0.0033	0.004	0.0022	0.0085
Toluene									<0.001	<0.001	<0.001	<0.001
Total Xylenes									<0.001	0.0017	<0.001	0.0029
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons									<5	<5	<5	<5

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-24 2/15/2006	EP-24 8/10/2006	EP-25 2/15/2006	EP-26 2/14/2006	EP-26 5/16/2006	EP-26 8/8/2006	EP-26 12/19/2006	EP-29 2/6/2006	EP-29 7/26/2006	EP-35 2/6/2006	EP-35 7/26/2006	EP-4 2/6/2006
Total Metals (mg/L)												
Arsenic	0.014	<0.01	2.6	0.021		0.189		0.186	0.247 J	0.301	0.442 J	0.059
Cadmium	<0.001	<0.001	0.024	0.226		0.145		<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	0.131	0.01	<0.01		<0.01		0.05	0.108 J	0.02	<0.036 UJ	<0.01
Copper	<0.01	0.016	0.49	<0.01		0.017		<0.01	0.026	0.02	0.037	<0.01
Iron	0.04	0.332	5.6	<0.03		0.727 J		1.07	1.18	0.23	0.6	1.05
Lead	<0.003	<0.005	0.292	<0.003		<0.005		<0.003	<0.005	0.004	0.024	<0.003
Selenium	0.024	<0.01 UJ	0.101	1.19		0.969		0.234	0.283	0.479	0.499	<0.005
Zinc	0.19 J	0.037	0.27 J	0.75		0.435		<0.01	<0.005	<0.01	0.13	<0.01
Water Quality Parameters (mg/L)												
pH (SU)	7.1	7.54	7.1	7.2		7.48		7.4	7.61	7.1	7	7.6
Specific Conductivity (umhos/cm)	3620	4310	4320	4580		4600		4140	4350	5400	5800	3300
Total Dissolved Solids	2440	2280	2820	4030		2970		3000	3180	4850	4500	2430
Volatile Organic Compounds (mg/L)												
Benzene				<0.001	<0.001	<0.001	<0.001					
Ethylbenzene				<0.001	<0.001	<0.001	<0.001					
Toluene				<0.001	<0.001	<0.001	<0.001					
Total Xylenes				<0.001	<0.001	<0.001	<0.001					
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons				<5	<5	<5	<5					

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-4 7/26/2006	EP-43 2/15/2006	EP-43 8/16/2006	EP-5 2/6/2006	EP-5 7/26/2006	EP-51 2/14/2006	EP-51 5/16/2006	EP-51 8/8/2006	EP-51 12/19/2006	EP-52 2/14/2006	EP-52 5/16/2006	EP-52 8/8/2006
Total Metals (mg/L)												
Arsenic	0.074 J	0.638	0.311	0.039	0.033 J	0.092		<0.01		0.123		<0.01
Cadmium	<0.001	0.002	0.039	<0.001	<0.001	0.041		0.048		0.438		0.38
Chromium	<0.005 UJ	0.03	0.012 J	<0.01	<0.005 UJ	<0.01		<0.01		0.03		0.162
Copper	<0.005	0.03	0.371	0.06	<0.005	0.07		0.205		0.24		0.311
Iron	2.01	1.09	6.98 J	0.11	0.111	0.2		1.75 J		0.81		4.54 J
Lead	<0.005	0.027	0.366	0.01	<0.005	<0.003		<0.005		0.047		0.05
Selenium	<0.01	0.049	<0.01	<0.005	<0.01	0.147		0.132		0.207		0.14
Zinc	0.06	0.03 J	0.319	0.01	0.006	0.56		0.52		3.09		4.41
Water Quality Parameters (mg/L)												
pH (SU)	7.34	7	8.14	7.7	7.83	6.8		6.95		6.4		6.69
Specific Conductivity (umhos/cm)	4130	3350	3930	3200	3640	13200		17600		10500		12400
Total Dissolved Solids	2420	2510	2820	2270	1840	11500		12700		10700		10300
Volatile Organic Compounds (mg/L)												
Benzene						<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene						<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene						<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes						<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons						<5	<5	<5	<5	<5	<5	<5

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-52 12/19/2006	EP-53 2/14/2006	EP-53 5/16/2006	EP-53 8/8/2006	EP-53 12/20/2006	EP-54 2/14/2006	EP-54 5/16/2006	EP-54 8/8/2006	EP-54 12/22/2006	EP-56 2/14/2006	EP-56 5/16/2006	EP-56 8/8/2006
Total Metals (mg/L)												
Arsenic		19.3		23.7		13.2		3.17		4.14		3.87
Cadmium		0.067		0.233		0.212		0.123		0.003		<0.001
Chromium		<0.01		0.348		<0.01		0.157		<0.01		<0.01
Copper		0.02		0.03		0.26		0.121		0.02		0.015
Iron		<0.05		1.72 J		<0.05		1.2 J		0.09		0.918 J
Lead		<0.003		<0.005		<0.003		<0.005		0.004		<0.005
Selenium		0.81		2.14		0.112		0.171		0.035		0.036
Zinc		0.42		0.805		4.32		2.81		0.19		0.048
Water Quality Parameters (mg/L)												
pH (SU)		7.3		7.51		6.8		7.13		7.3		7.59
Specific Conductivity (umhos/cm)		5010		6480		7320		3820		3910		4370
Total Dissolved Solids		3910		4660		6570		2960		3170		2880
Volatile Organic Compounds (mg/L)												
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	0.0077	0.0151	<0.001	0.0037	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-56 12/19/2006	EP-57 2/15/2006	EP-57 8/16/2006	EP-58 2/15/2006	EP-58 8/16/2006	EP-59 2/13/2006	EP-59 5/15/2006	EP-59 8/8/2006	EP-59 8/9/2006	EP-59 12/19/2006	EP-6 2/6/2006	EP-6 7/26/2006
Total Metals (mg/L)												
Arsenic		0.043	<0.01	3.36	3.05	1.57			1.31		0.023	0.021 J
Cadmium		<0.001	<0.001	<0.001	<0.001	<0.001			0.005		<0.001	<0.001
Chromium		0.01	1.2 J	0.02	0.061 J	0.02			0.021		<0.01	<0.005 UJ
Copper		<0.01	0.006	0.02	<0.005	0.01			<0.005		0.01	<0.005
Iron		0.38	4.85 J	5.51	2.62 J	0.2			0.165		0.64	<0.01
Lead		<0.003	<0.005	<0.003	<0.005	<0.003			<0.005		0.006	<0.005
Selenium		0.066	<0.01	0.067	<0.01	0.16			0.133		0.008	<0.01
Zinc		<0.01 UJ	0.024	0.05 J	0.03	0.02 J			0.047		0.02	0.007
Water Quality Parameters (mg/L)												
pH (SU)		6.9	7.96	6.7	7.98	7.4			7.75		7.7	7.46
Specific Conductivity (umhos/cm)		6100	6790	8530	9840	3480			3980		4340	5010
Total Dissolved Solids		5920	6300	7890	7790	2740			2515		3490	3160
Volatile Organic Compounds (mg/L)												
Benzene	<0.001					<0.001	<0.001	<0.005		<0.001		
Ethylbenzene	<0.001					<0.001	<0.001	<0.005		<0.001		
Toluene	<0.001					<0.001	<0.001	<0.005		<0.001		
Total Xylenes	<0.001					<0.001	<0.001	<0.005		<0.001		
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons	<5					<5	<5	<5		<5		

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-60 2/13/2006	EP-60 5/15/2006	EP-60 8/9/2006	EP-60 12/19/2006	EP-61 2/15/2006	EP-61 8/16/2006	EP-62 2/13/2006	EP-62 5/15/2006	EP-62 8/9/2006	EP-62 12/19/2006	EP-63 2/13/2006	EP-63 5/15/2006
Total Metals (mg/L)												
Arsenic	0.008		<0.01		0.007	<0.01	1.12		1.38		0.017	
Cadmium	<0.001		0.004		<0.001	<0.001	<0.001		0.011		<0.001	
Chromium	<0.01		0.076		<0.01	0.175 J	<0.01		0.015		0.01	
Copper	<0.01		0.011		0.02	<0.005	<0.01		0.073		<0.01	
Iron	0.04		0.568		0.14	1.44 J	0.07		0.169		0.19	
Lead	<0.003		<0.005		<0.003	<0.005	<0.003		<0.005		<0.003	
Selenium	0.124		0.089		0.298	0.207	0.184		0.954		0.055	
Zinc	0.2 J		0.059		0.33 J	0.017	<0.01 UJ		0.084		<0.01 UJ	
Water Quality Parameters (mg/L)												
pH (SU)	7.2		7.64		7.2	8.38	7.5		7.79		7.3	
Specific Conductivity (umhos/cm)	6420		7260		5150	5600	3630		11500		5400	
Total Dissolved Solids	6300		5460		4690	4300	2850		8110		4490	
Volatile Organic Compounds (mg/L)												
Benzene	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons	<5	<5	<5	<5			<5	<5	<5	<5	<5	<5

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-63 8/9/2006	EP-63 12/19/2006	EP-64 2/13/2006	EP-64 5/15/2006	EP-64 8/9/2006	EP-64 12/19/2006	EP-65 2/15/2006	EP-65 8/16/2006	EP-66 2/13/2006	EP-66 5/15/2006	EP-66 8/9/2006	EP-66 12/19/2006
Total Metals (mg/L)												
Arsenic	<0.01		0.015		<0.01		<0.005	<0.01	9.72		14.5	
Cadmium	0.007		<0.001		0.006		<0.001	<0.001	0.002		0.005	
Chromium	0.016		<0.01		<0.005		<0.01	0.371 J	<0.01		<0.005	
Copper	0.021		<0.01		0.016		<0.01	<0.005	0.01		0.023	
Iron	0.37		0.4		0.11		0.15	1.88 J	0.04		0.057	
Lead	<0.005		<0.003		<0.005		<0.003	<0.005	<0.003		<0.005	
Selenium	<0.01		0.26		0.29		0.165	0.137	0.309		0.397	
Zinc	0.077		<0.01 UJ		0.051		0.01 J	0.017	0.03 J		0.065	
Water Quality Parameters (mg/L)												
pH (SU)	7.58		7.7		7.89		7.3	8.42	7.4		7.56	
Specific Conductivity (umhos/cm)	6200		6240		7550		4520	4790	6110		8450	
Total Dissolved Solids	4440		5780		5860		4020	3800	5870		6830	
Volatile Organic Compounds (mg/L)												
Benzene	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001			<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001			<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001			<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001			<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5			<5	<5	<5	<5

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-67 2/7/2006	EP-67 7/27/2006	EP-68 2/7/2006	EP-68 7/27/2006	EP-7 2/6/2006	EP-7 7/26/2006	EP-70 2/7/2006	EP-70 7/27/2006	EP-71 2/7/2006	EP-71 7/27/2006	EP-72 2/7/2006	EP-72 7/27/2006
Total Metals (mg/L)												
Arsenic	0.006	<0.01	<0.01	<0.01	0.035	0.05 J	0.519	0.407	0.178	0.136	<0.005	0.059
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	0.004	<0.001	<0.001	0.005	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005 UJ	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.021	<0.01	0.015	<0.01	<0.005	<0.01	0.016	<0.01	0.014	0.01	0.016
Iron	0.05	<0.01	<0.03	0.033	0.88	1.09	0.07	<0.01	0.09	<0.01	0.12	0.03
Lead	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005
Selenium	0.053	0.049	0.207	0.165	<0.005	<0.01	0.14	0.114	0.167	0.144	2.84	1.81
Zinc	<0.01	0.065 J	<0.01	0.047 J	<0.01	0.005	0.06	0.093 J	<0.01	0.033 J	0.03	0.053 J
Water Quality Parameters (mg/L)												
pH (SU)	7.2	7.09	7.3	7.28	7.6	7.42	7.2	7.21	7.3	7.18	7.2	7.09
Specific Conductivity (umhos/cm)	3580	4080	4260	4670	2530	2920	5270	6070	5620	6370	5610	5690
Total Dissolved Solids	3410	3030	3680	3085	1830	1500	4740	4260	5250	4860	5180	4185
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-73 2/14/2006	EP-73 8/8/2006	EP-75 2/8/2006	EP-75 7/28/2006	EP-76 2/8/2006	EP-76 7/28/2006	EP-77 2/8/2006	EP-77 7/28/2006	EP-78 2/9/2006	EP-78 8/15/2006	EP-79 2/9/2006	EP-79 8/15/2006
Total Metals (mg/L)												
Arsenic	<0.005	<0.01	29.6	29.1	0.343	0.27	1.39	3.66	2.49	2.91	<0.005	<0.01
Cadmium	<0.001	0.004	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	0.217	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	0.009	0.05	0.024	0.01	0.013	0.02	0.018	<0.01	0.01	<0.01	0.006
Iron	<0.03	0.917 J	0.2	0.078	<0.03	0.013	0.62	0.042	<0.03	0.069	<0.03	0.162
Lead	<0.003	<0.005	<0.003	<0.005	0.004	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005
Selenium	0.552	0.532	2.45	2.25	0.106	0.08	0.061	0.054	0.175	0.322	0.08	0.107
Zinc	<0.01	0.066	0.04	0.051	0.04	0.051	<0.01	0.016	<0.01	0.027	<0.01	0.021
Water Quality Parameters (mg/L)												
pH (SU)	7.2	7.6	7.3	7.31	7.5	7.5	7.4	7.39	7.7	8.65	7.8	8.62
Specific Conductivity (umhos/cm)	4250	4930	9190	10800	3640	<4310 UJ	3770	<4360 UJ	2880	1760	3810	3830
Total Dissolved Solids	3520	3400	9270	8550	3040	2930	3140	2790	2110	1200	2830	2660
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-80 2/10/2006	EP-80 8/9/2006	EP-81 2/10/2006	EP-81 8/9/2006	EP-82 2/9/2006	EP-82 8/14/2006	EP-83 2/9/2006	EP-83 8/14/2006	EP-84 2/9/2006	EP-84 8/14/2006	EP-85 2/10/2006	EP-85 8/9/2006
Total Metals (mg/L)												
Arsenic	0.013	<0.01	0.298	0.057	<0.005	<0.01	<0.005	<0.01	0.028	<0.01	1.87	2.57
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	0.005	<0.001	<0.001
Chromium	<0.01	<0.005	<0.01	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005
Copper	<0.01	0.024	<0.01	0.03	<0.01	0.038	<0.01	0.006	0.02	0.032	0.01	0.006
Iron	<0.03	0.072	<0.03	0.066	<0.03	0.219	0.04	0.09	<0.03	0.058	<0.03	0.014
Lead	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	0.033	<0.005	<0.003	<0.005
Selenium	0.032	<0.01	0.082	0.088	0.09	0.132 J	0.042	0.038 J	0.023	0.019 J	0.133	0.164
Zinc	0.23 J	0.051	0.17 J	0.048	<0.01	0.056	<0.01	0.021	0.03	0.04	0.01 J	0.028
Water Quality Parameters (mg/L)												
pH (SU)	7.5	7.75	7.6	7.81	7.3	8.3	7.7	8.58	7.2	8.34	7.6	7.9
Specific Conductivity (umhos/cm)	4920	4870	1320	1130	3080	2860	3400	3490	2780	2310	2600	3160
Total Dissolved Solids	4480	3680	1040	800	2420	684	2490	2380	2240	1770	1960	1900
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2006

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Location / Sampling Date	EP-86 2/9/2006	EP-86 8/15/2006	EP-88 2/8/2006	EP-88 7/28/2006	EP-89 2/7/2006	EP-89 7/26/2006	EP-90 2/8/2006	EP-90 7/27/2006	EP-93 2/9/2006	EP-94 2/9/2006	EP-94 8/14/2006	EP-95 2/9/2006
Total Metals (mg/L)												
Arsenic	<0.005	<0.01	<0.005	0.02	<0.005	<0.01 UJ	0.145	0.16	0.006	<0.005	<0.01	0.01
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	0.004	0.022	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.012 UJ	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.005	0.01	0.012	<0.01	0.009	<0.01	0.014	<0.01	<0.01	0.006	<0.01
Iron	0.03	0.069	<0.03	0.099	0.04	0.062	<0.03	0.184	<0.03	<0.03	0.025	<0.03
Lead	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003	<0.003	<0.005	<0.003
Selenium	0.03	<0.01	0.071	0.073	0.026	<0.01	0.927	0.566	0.029	0.03	0.02 J	0.027
Zinc	<0.01	0.013	0.19	0.012	<0.01	0.014	0.24	0.024 J	0.2	<0.01	0.023	0.1
Water Quality Parameters (mg/L)												
pH (SU)	7.7	8.56	7.5	7.49	7.4	7.18	7.3	7.33	7.4	7.5	8.54	8
Specific Conductivity (umhos/cm)	2430	2530	3800	<4360 UJ	2800	3140	4550	4930	4240	4030	4130	2810
Total Dissolved Solids	1740	1730	3070	2760	2210	2900	3830	3435	3250	3120	2400	2030
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-95 8/14/2006	EP-97 2/9/2006	EP-97 8/14/2006	EP-98 2/9/2006	EP-98 8/14/2006	MW-1 2/16/2006	MW-2 2/16/2006	MW-3 2/16/2006	MW-5 2/16/2006
Total Metals (mg/L)									
Arsenic	<0.01	0.13	0.175	<0.005	<0.01	1.94	1.13	1.32	0.01
Cadmium	<0.001	0.005	0.011	<0.001	0.003	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.008	0.11	0.176	<0.01	0.035	<0.01	<0.01	<0.01	<0.01
Iron	0.141	0.12	0.625	<0.03	1.56	<0.03	0.06	0.35	<0.03
Lead	<0.005	0.006	0.037	<0.003	<0.005	<0.003	<0.003	<0.003	<0.003
Selenium	0.02 J	0.014	<0.01 UJ	0.282	0.86 J	0.137	0.129	0.012	0.027
Zinc	0.013	0.18	0.106	0.17	0.058	<0.01	<0.01	<0.01	0.05
Water Quality Parameters (mg/L)									
pH (SU)	8.7	7.7	8.4	7.6	8.67	7.8	7.7	7.6	7.5
Specific Conductivity (umhos/cm)	1770	3990	3230	4860	8240	2480	2880	4040	2860
Total Dissolved Solids	1160	3150	2410	5500	6540	1870	2110	3320	2200
Volatile Organic Compounds (mg/L)									
Benzene									
Ethylbenzene									
Toluene									
Total Xylenes									
Petroleum Hydrocarbons (mg/L)									
Total Petroleum Hydrocarbons									

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Location / Sampling Date	EP-100 1/18/2007	EP-100 8/6/2007	EP-101 1/15/2007	EP-101 7/31/2007	EP-102 1/15/2007	EP-102 7/31/2007	EP-103 1/15/2007	EP-103 8/2/2007	EP-104 1/15/2007	EP-104 8/2/2007	EP-105 1/15/2007	EP-105 8/2/2007
Total Metals (mg/L)												
Aluminum												
Antimony												
Arsenic	<0.00489	<0.0043	13.9	7.54	0.152	0.185	<0.00489	0.016 J	0.066	0.055 J	0.039	0.105 J
Barium												
Beryllium												
Cadmium	0.017	0.012	4.07	3.93	0.444	0.113	0.024	0.038	<0.000268	0.003	<0.000268	0.009
Calcium												
Chromium	<0.00357	0.009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	0.006
Cobalt												
Copper	0.012	0.024	0.032	0.043	0.099	0.029	0.002 J	0.012	<0.00127	0.002	0.019	0.045
Iron	0.103	1.58	0.239	1.09	0.756	0.418	0.085	0.182	0.022	0.03	0.364	1.98
Lead	<0.0031	<0.0074	0.032	0.021	0.059	0.013	<0.0031	<0.0074	<0.0031	<0.0074	0.015	0.016
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium	0.317	0.38	6.19	3.27	1.92	1.26	0.642	0.602 J	0.056	0.066 J	<0.005	0.05 J
Silver												
Sodium												
Thallium												
Vanadium												
Zinc	0.134	0.174	1.64	1.07	2.25	0.239	0.064	0.05	0.003 J	<0.0071	0.057	0.091
Dissolved Metals (mg/L)												
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium												

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Location Sampling Date	EP-100 1/18/2007	EP-100 8/6/2007	EP-101 1/15/2007	EP-101 7/31/2007	EP-102 1/15/2007	EP-102 7/31/2007	EP-103 1/15/2007	EP-103 8/2/2007	EP-104 1/15/2007	EP-104 8/2/2007	EP-105 1/15/2007	EP-105 8/2/2007
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												
Water Quality Parameters (mg/L)												
Bromide												
Phosphate												
Bicarbonate Alkalinity												
Carbonate Alkalinity												
Chloride												
Hydroxide Alkalinity												
Nitrate												
pH	6.65	6.91	7.02	6.83	7.17	7.2	6.99	7	7.52	7.58	7.67	7.72
Specific Conductivity (umhos/cm)	10400	9750	22600	12600	<1780 UJ	1870	<5270 UJ	5770	<3720 UJ	4320	<3890 UJ	3710
Sulfate												
Total Alkalinity												
Total Dissolved Solids	7690	8520	20700	9480	1320	1180	4220	4960	2510	3020	2810	2790
Total Organic Carbon												
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-106 1/15/2007	EP-106 8/2/2007	EP-107 1/15/2007	EP-107 8/13/2007	EP-108 1/25/2007	EP-108 8/9/2007	EP-109 1/25/2007	EP-109 8/9/2007	EP-110 1/11/2007	EP-110 7/31/2007	EP-111 1/29/2007	EP-111 8/10/2007
Total Metals (mg/L)												
Aluminum												
Antimony												
Arsenic	<0.00489	<0.0043 UJ	<0.00489	0.033	0.715	0.199	0.089	0.263	<0.00489	<0.0043	2.35	0.953
Barium												
Beryllium												
Cadmium	<0.000268	0.004	<0.000268	<0.0014	<0.0004	<0.0014	<0.0004	<0.0014	<0.000268	<0.0014	<0.000268	0.002
Calcium												
Chromium	<0.00357	<0.0009	<0.00357	<0.0009	<0.0014	<0.0009	<0.0014	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009
Cobalt												
Copper	0.002 J	0.006	<0.00127	0.007	0.021	0.018	0.013	0.024	<0.00127	0.008	0.112	0.028
Iron	0.435	0.363	0.081	0.074	0.132	0.056	0.162	0.031	0.026	0.024	6.22	1.97
Lead	<0.0031	<0.0074	<0.0031	<0.0074	<0.00167	<0.0074	<0.00167	<0.0074	<0.0031	<0.0074	<0.0031	0.012
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium	0.132	0.122 J	0.504	0.514	0.081	0.014 J	0.075	0.21	<0.005	<0.0131	<0.005	<0.0131
Silver												
Sodium												
Thallium												
Vanadium												
Zinc	0.01	0.017	0.015	0.018	0.053	0.029	0.035	0.034	0.085	0.012	0.013	0.019
Dissolved Metals (mg/L)												
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium												

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Location / Sampling Date	EP-106 1/15/2007	EP-106 8/2/2007	EP-107 1/15/2007	EP-107 8/13/2007	EP-108 1/25/2007	EP-108 8/9/2007	EP-109 1/25/2007	EP-109 8/9/2007	EP-110 1/11/2007	EP-110 7/31/2007	EP-111 1/29/2007	EP-111 8/10/2007
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												
Water Quality Parameters (mg/L)												
Bromide												
Phosphate												
Bicarbonate Alkalinity												
Carbonate Alkalinity												
Chloride												
Hydroxide Alkalinity												
Nitrate												
pH	7.27	7.4	7.3	7.34	7.59	7.79	7.68	7.78	7.02	7.25	7.11	7.29
Specific Conductivity (umhos/cm)	<4630 UJ	4430	<6010 UJ	5810	3040	586	2980	1600	3210	3020	6460	6120
Sulfate												
Total Alkalinity												
Total Dissolved Solids	3470	3580	4760	4600	2140	<350 UJ	2090	1140	1970	2220	4650	4640
Total Organic Carbon												
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-112 1/29/2007	EP-112 8/10/2007	EP-114 1/10/2007	EP-114 7/30/2007	EP-116 1/10/2007	EP-117 1/31/2007	EP-117 7/30/2007	EP-119 1/8/2007	EP-119 8/7/2007	EP-12 1/9/2007	EP-12 8/13/2007	EP-120 1/25/2007
Total Metals (mg/L)												
Aluminum			<0.00148		0.328			0.021 J		<0.00148		
Antimony			<0.0116		0.066			<0.0116		<0.0116		
Arsenic	<0.00489	<0.0043	62.5	88.9	0.326	4.45	4.06	1.51	1.61	0.638	1.81	0.181
Barium			0.03		0.024			0.029		0.046		
Beryllium			0.008		0.006			<0.000178		<0.000178		
Cadmium	<0.000268	<0.0014	0.06	0.073	0.519	0.264	0.161	0.004	0.002	<0.000268	<0.0014	<0.0004
Calcium			603		284			157		215		
Chromium	<0.00357	<0.0009	0.009	<0.0009	<0.00357	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	0.006	<0.0014
Cobalt			0.023		0.016			<0.00293		<0.00293		
Copper	0.006	<0.0014	0.138	0.065	3.58	<0.00127	0.007	0.005	0.002	0.022	0.015	0.038
Iron	0.039	0.245	2.76	6.85	1.35	0.125	0.039	0.048	0.142	3.01	2.38	0.325
Lead	<0.0031	0.008 J	0.192	0.08	0.573	0.049 J	<0.0074	<0.0031	<0.0074	<0.0031	0.017	<0.00167
Magnesium			222		55.5			64		67.8		
Manganese			9.68		1.28			0.108		0.484		
Nickel			0.119		0.035			<0.00045		0.038		
Phosphorus			0.09		0.302			0.094		0.089		
Potassium			164		45.5			52.5		12.1		
Selenium	<0.005	<0.0131	<0.005 UJ	<0.0131	0.403 J	1.21	2.31	0.137	0.298	1.83	0.197	<0.00163
Silver			<0.000274		<0.000274			<0.000274		<0.000274		
Sodium			471		766			699		891		
Thallium			<0.0112		0.713			0.015 J		<0.0112		
Vanadium			<0.005		<0.005			0.012		0.014		
Zinc	<0.000666	<0.0071	19.7	10.5	2.21	0.329	0.207	0.009	0.023	0.046	0.016	0.049
Dissolved Metals (mg/L)												
Aluminum			<0.00984		<0.00984			<0.00984		<0.00984		
Antimony			<0.00326		0.049			<0.00326		<0.00326		
Arsenic			62.5		<0.0036			1.48		0.635		
Barium			0.029		0.023			0.025		0.046		
Beryllium			<0.000178		<0.000178			<0.000178		<0.000178		
Cadmium			0.057		0.494			<0.000577		<0.000577		
Calcium			603		285			162		214		
Chromium			0.009		<0.00357			<0.00357		<0.00357		
Cobalt			0.017		0.015			<0.00293		<0.00293		
Copper			0.137		1.44			<0.00127		<0.00127		
Iron			2.76		<0.00281			<0.00281		2.49		
Lead			0.182		0.108			<0.00398		<0.00398		
Magnesium			224		56.5			64.6		69.6		
Manganese			9.32		1.2			0.097		0.467		
Nickel			0.113		0.035			<0.00045		0.033		
Phosphorus			0.08		0.134			0.07		0.031 J		
Potassium			160		45.5			54		12.6		
Selenium			<0.00556		0.366			<0.00556 UJ		1.42		

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-112 1/29/2007	EP-112 8/10/2007	EP-114 1/10/2007	EP-114 7/30/2007	EP-116 1/10/2007	EP-117 1/31/2007	EP-117 7/30/2007	EP-119 1/8/2007	EP-119 8/7/2007	EP-12 1/9/2007	EP-12 8/13/2007	EP-120 1/25/2007
Silver			<0.000199		<0.000199			<0.000199		<0.000199		
Sodium			467		812			733		884		
Thallium			<0.0277		0.698			<0.0277		<0.0277		
Vanadium			<0.005		<0.005			0.007		0.014		
Zinc			19.6		1.98			<0.003		0.026		
Water Quality Parameters (mg/L)												
Bromide			6.71		2.89			1.89		<0.214		
Phosphate			<0.128		<0.128			<0.128		<0.128		
Bicarbonate Alkalinity			400		356			384		876		
Carbonate Alkalinity			<1		<1			<1		<1		
Chloride			214		390			400		203		
Hydroxide Alkalinity			<1		<1			<1		<1		
Nitrate			<0.053		20.3			11		6.6		
pH	7.07	7.31	6.78	6.75	6.99	7.24	7.54	7.28	7.38	6.94	7.49	7.57
Specific Conductivity (umhos/cm)	9230	5180	5260	5240	4800	3990	4620	4050	3370	4430	4030	4030
Sulfate			3160		2000			1310		1250		
Total Alkalinity			400		356			384		876		
Total Dissolved Solids	6780	3730	4410	4920	3020	3120	3360	2360	2380	2850	2770	3100
Total Organic Carbon			7.75		3.3			2.3 J		10.5		
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-120 8/9/2007	EP-122 1/8/2007	EP-122 8/9/2007	EP122-OBS3 10/5/2007	EP122-OBS4 10/5/2007	EP-123 1/25/2007	EP-123 8/9/2007	EP-124 1/31/2007	EP-124 8/13/2007	EP-125 1/18/2007	EP-125 8/3/2007	EP-126 1/18/2007
Total Metals (mg/L)												
Aluminum		<0.00148										
Antimony		<0.0116										
Arsenic	0.208	1.18	1.06	1.3	1.54	1.1	2.29	0.277	3.03	<0.00489	0.016	0.225
Barium		0.035										
Beryllium		<0.000178										
Cadmium	<0.0014	0.004	<0.0014			<0.0004	<0.0014	0.082	1.02	0.002	0.005	<0.000268
Calcium		182										
Chromium	0.001	<0.00357	0.001			0.009 J	0.005	<0.00357	0.114	<0.00357	<0.0009	1.44
Cobalt		<0.00293										
Copper	0.016	<0.00127	0.009			0.004 J	0.003	0.044	0.618	0.014	0.037	<0.00127
Iron	0.238	0.026	0.046			0.058	0.183	0.492	106	0.067	0.594	0.059
Lead	<0.0074	<0.0031	<0.0074			<0.00167	<0.0074	0.067 J	0.535	<0.0031	<0.0074	<0.0031
Magnesium		78.9										
Manganese		0.002 J										
Nickel		<0.00045										
Phosphorus		0.086										
Potassium		49.9										
Selenium	0.097	0.381	0.199			0.212	0.069	0.136	<0.0131	0.381	0.475	0.424
Silver		<0.000274										
Sodium		560										
Thallium		0.019 J										
Vanadium		<0.005										
Zinc	0.011	0.012	0.009 J			0.009	<0.0071	0.167	2.25	1.42	1.9	<0.000666
Dissolved Metals (mg/L)												
Aluminum		<0.00984										
Antimony		<0.00326										
Arsenic		1.17		1.36	1.61							
Barium		0.031										
Beryllium		<0.000178										
Cadmium		<0.000577										
Calcium		182										
Chromium		<0.00357										
Cobalt		<0.00293										
Copper		<0.00127										
Iron		<0.00281										
Lead		<0.00398										
Magnesium		79.1										
Manganese		0.003 J										
Nickel		<0.00045										
Phosphorus		0.062										
Potassium		51.1										
Selenium		0.322										

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Location / Sampling Date	EP-120 8/9/2007	EP-122 1/8/2007	EP-122 8/9/2007	EP122-OBS3 10/5/2007	EP122-OBS4 10/5/2007	EP-123 1/25/2007	EP-123 8/9/2007	EP-124 1/31/2007	EP-124 8/13/2007	EP-125 1/18/2007	EP-125 8/3/2007	EP-126 1/18/2007
Silver		<0.000199										
Sodium		569										
Thallium		<0.0277										
Vanadium		<0.005										
Zinc		0.009										
Water Quality Parameters (mg/L)												
Bromide		1.55										
Phosphate		<0.128										
Bicarbonate Alkalinity		304										
Carbonate Alkalinity		<1										
Chloride		197										
Hydroxide Alkalinity		<1										
Nitrate		9.96										
pH	7.55	7.28	7.27			7.71	7.69	7.79	7.8	6.69	7.17	7.28
Specific Conductivity (umhos/cm)	2220	3600	3470			3620	3460	972	1710	9420	8840	5240
Sulfate		1340										
Total Alkalinity		304										
Total Dissolved Solids	1520	2330	2670			2570	2410	<736 UJ	1210	7620	7380	4110
Total Organic Carbon		1.98 J										
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-126 8/3/2007	EP-127 1/29/2007	EP-127 8/10/2007	EP-128 1/29/2007	EP-128 8/10/2007	EP-129 1/24/2007	EP-129 8/7/2007	EP-13 1/9/2007	EP-13 7/31/2007	EP-130 1/18/2007	EP-130 8/6/2007	EP-131 1/9/2007
Total Metals (mg/L)												
Aluminum								<0.00148				<0.00148
Antimony								<0.0116				<0.0116
Arsenic	0.045	2.2	2.17	0.634	0.734	<0.005	<0.0043	21.7	23.7	<0.00489	<0.0043	0.997
Barium								0.032				0.015
Beryllium								<0.000178				<0.000178
Cadmium	0.005	<0.000268	<0.0014	<0.000268	<0.0014	<0.0004	<0.0014	0.732	0.615	0.01	0.011	0.011
Calcium								423				100
Chromium	1.63	<0.00357	<0.0009	<0.00357	<0.0009	<0.0014	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357
Cobalt								<0.00293				<0.00293
Copper	0.01	<0.00127	<0.0014	<0.00127	0.002	<0.0038	<0.0014	0.052	0.002	<0.00127	0.008	<0.00127
Iron	0.292	1.2	0.676	0.985	0.724	0.429	2.1	0.605	<0.0069	0.128	0.918	0.172
Lead	<0.0074	<0.0031	0.011	<0.0031	0.011	<0.00167	<0.0074	<0.0031	<0.0074	<0.0031	<0.0074	<0.0031
Magnesium								67.2				36.2
Manganese								0.084				0.009 J
Nickel								0.009				0.011
Phosphorus								0.069				0.043 J
Potassium								87.4				14.2
Selenium	0.93	0.033	<0.0131	<0.005	<0.0131	<0.00163	0.02	5.2	3.74	0.125	0.163	0.122
Silver								<0.000274				<0.000274
Sodium								2560				650
Thallium								<0.0112				<0.0112
Vanadium								0.174				0.024
Zinc	0.046	<0.000666	0.012	<0.000666	<0.0071	0.039	0.015	<0.000666	<0.0071	0.024	0.061	0.02
Dissolved Metals (mg/L)												
Aluminum								<0.00984				<0.00984
Antimony								<0.00326				<0.00326
Arsenic								20.4				0.922
Barium								0.029				0.012
Beryllium								<0.000178				<0.000178
Cadmium								0.732				0.01
Calcium								394				104
Chromium								<0.00357				<0.00357
Cobalt								<0.00293				<0.00293
Copper								0.052				<0.00127
Iron								0.004 J				<0.00281
Lead								<0.00398				<0.00398
Magnesium								64.6				37.6
Manganese								0.08				0.009 J
Nickel								0.008				0.009
Phosphorus								0.067				0.026 J
Potassium								84.2				14.8
Selenium								5.2				<0.00556

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-126 8/3/2007	EP-127 1/29/2007	EP-127 8/10/2007	EP-128 1/29/2007	EP-128 8/10/2007	EP-129 1/24/2007	EP-129 8/7/2007	EP-13 1/9/2007	EP-13 7/31/2007	EP-130 1/18/2007	EP-130 8/6/2007	EP-131 1/9/2007
Silver								<0.000199				<0.000199
Sodium								2420				677
Thallium								<0.0277				<0.0277
Vanadium								0.172				0.023
Zinc								0.024				0.017
Water Quality Parameters (mg/L)												
Bromide								9.93				<0.214
Phosphate								<0.128				
Bicarbonate Alkalinity								348				520
Carbonate Alkalinity								<1				<1
Chloride								946				212
Hydroxide Alkalinity								<1				<1
Nitrate								195				4.34
pH	7.66	7.08	7.22	7.53	7.69	7.4	7.18	7.03	7.24	6.53	6.71	7
Specific Conductivity (umhos/cm)	5150	5610	5740	8150	8030	3670	3590	11600	11100	8200	8150	3370
Sulfate								4610				1210
Total Alkalinity								348				520
Total Dissolved Solids	4350	3790	4400	5640	5290	2970	2530	6030	9470	6420	6640	2000
Total Organic Carbon								1.75				1.8
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-131 8/6/2007	EP-132 1/8/2007	EP-132 8/7/2007	EP-133 1/9/2007	EP-133 8/10/2007	EP-134 1/29/2007	EP-134 8/10/2007	EP-135 1/8/2007	EP-135 8/7/2007	EP-136 1/29/2007	EP-136 8/10/2007	EP-137 1/29/2007
Total Metals (mg/L)												
Aluminum		0.146		0.937				3.08				
Antimony		<0.0116		<0.0116				<0.0116				
Arsenic	1.23	1.73	1.81	1.67	1.47	0.665	0.819	2.15	2.12	0.172	0.164	0.095
Barium		0.023		0.04				0.052				
Beryllium		<0.000178		<0.000178				<0.000178				
Cadmium	<0.0014	0.004	<0.0014	<0.000268	<0.0014	<0.000268	<0.0014	0.005	<0.0014	<0.000268	<0.0014	0.045
Calcium		221		234				609				
Chromium	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	0.005	<0.00357	0.01	<0.00357	<0.0009	0.006
Cobalt		<0.00293		<0.00293				<0.00293				
Copper	0.008	0.005	<0.0014	0.006	0.004	0.025	0.025	0.016	0.013	0.009	<0.0014	0.205
Iron	0.169	0.165	0.475	2.04	1.73	3.84	4.99	1.97	8.64	2.63	1.82	9.67
Lead	<0.0074	<0.0031	<0.0074	<0.0031	<0.0074	0.023	0.016	0.027	<0.0074	<0.0031	<0.0074	0.185
Magnesium		44.6		66				176				
Manganese		0.017 J		0.582				0.562				
Nickel		0.026		0.037				0.01				
Phosphorus		0.058		0.089				0.59				
Potassium		45.3		49.4				16.4				
Selenium	0.083	0.285	0.338	0.083	0.029	<0.005	0.029	<0.005	0.129	<0.005	<0.0131	0.112
Silver		<0.000274		<0.000274				<0.000274				
Sodium		752		1170				1340				
Thallium		<0.0112		<0.0112				<0.0112				
Vanadium		0.027		<0.005				0.045				
Zinc	0.022	0.008	0.019	0.002 J	0.009 J	0.017	0.032	0.031	0.047	0.004 J	0.013	0.311
Dissolved Metals (mg/L)												
Aluminum		<0.00984		<0.00984				0.981				
Antimony		<0.00326		<0.00326				<0.00326				
Arsenic		1.71		1.67				2.13				
Barium		0.018		0.036				0.027				
Beryllium		<0.000178		<0.000178				<0.000178				
Cadmium		<0.000577		<0.000577				<0.000577				
Calcium		224		230				608				
Chromium		<0.00357		<0.00357				<0.00357				
Cobalt		<0.00293		<0.00293				<0.00293				
Copper		<0.00127		<0.00127				0.009 J				
Iron		<0.00281		1.47				0.517				
Lead		<0.00398		<0.00398				<0.00398				
Magnesium		44.7		64.2				178				
Manganese		0.007 J		0.535				0.441				
Nickel		0.025		0.037				<0.00045				
Phosphorus		0.033 J		0.056				0.386				
Potassium		45.5		47.6				15.6				
Selenium		0.231		<0.00556				0.106 J				

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Location / Sampling Date	EP-131 8/6/2007	EP-132 1/8/2007	EP-132 8/7/2007	EP-133 1/9/2007	EP-133 8/10/2007	EP-134 1/29/2007	EP-134 8/10/2007	EP-135 1/8/2007	EP-135 8/7/2007	EP-136 1/29/2007	EP-136 8/10/2007	EP-137 1/29/2007
Silver		<0.000199		<0.000199				<0.000199				
Sodium		771		1160				1380				
Thallium		<0.0277		<0.0277				<0.0277				
Vanadium		0.023		<0.005				0.039				
Zinc		<0.003		<0.003				0.015				
Water Quality Parameters (mg/L)												
Bromide		2.8		<0.214				0.979 J				
Phosphate		<0.128		<0.128				<0.128				
Bicarbonate Alkalinity		294		416				500				
Carbonate Alkalinity		<1		<1				<1				
Chloride		413		324				991				
Hydroxide Alkalinity		<1		<1				<1				
Nitrate		15.1		1.56				50.1				
pH	7.35	7.25	7.37	6.78	7.37	7.25	7.29	7.08	7.16	7.1	7.42	7.33
Specific Conductivity (umhos/cm)	3690	4340	3940	5830	5230	5860	5880	8090	7720	7530	5180	4590
Sulfate		1540		1990				3060				
Total Alkalinity		294		416				500				
Total Dissolved Solids	2520	3720	2930	3890	4020	4590	4700	5560	5980	5130	3720	3340
Total Organic Carbon		2.03		3.71				1.98				
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-137 8/10/2007	EP-14 1/15/2007	EP-14 7/31/2007	EP-15 1/15/2007	EP-15 8/2/2007	EP-20 2/5/2007	EP-20 7/30/2007	EP-21 2/5/2007	EP-21 8/13/2007	EP-22 1/18/2007	EP-22 8/3/2007	EP-23 1/23/2007
Total Metals (mg/L)												
Aluminum												
Antimony												
Arsenic	0.201	0.995	0.987	<0.00489	0.005 J	1.05	0.867	<0.00489	0.025	21	30.5	0.771
Barium												
Beryllium												
Cadmium	0.043	<0.000268	<0.0014	<0.000268	0.006	0.174	0.093	<0.000268	<0.0014	0.011	0.015	<0.000268
Calcium												
Chromium	0.008	<0.00357	<0.0009	<0.00357	0.002	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357
Cobalt												
Copper	0.119	<0.00127	0.006	<0.00127	0.012	0.007	<0.0014	0.011	0.008	0.127	0.096	<0.00127
Iron	5.74	0.008 J	0.008	0.109	1.06	0.014	<0.0069	1.16	1.34	0.106	0.449	0.625
Lead	0.079	0.008	<0.0074	<0.0031	<0.0074	<0.0031	<0.0074	<0.0031	<0.0074	0.034	0.018	<0.0031
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium	0.55	0.7	0.517	0.692	0.178 J	0.329	0.391	<0.005	<0.0131	2.11	2.28	<0.005
Silver												
Sodium												
Thallium												
Vanadium												
Zinc	0.203	0.012	0.011	0.009	0.015	0.074	0.036	0.063	0.079	0.941	0.509	0.01
Dissolved Metals (mg/L)												
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium												

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Location / Sampling Date	EP-137 8/10/2007	EP-14 1/15/2007	EP-14 7/31/2007	EP-15 1/15/2007	EP-15 8/2/2007	EP-20 2/5/2007	EP-20 7/30/2007	EP-21 2/5/2007	EP-21 8/13/2007	EP-22 1/18/2007	EP-22 8/3/2007	EP-23 1/23/2007
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												
Water Quality Parameters (mg/L)												
Bromide												
Phosphate												
Bicarbonate Alkalinity												
Carbonate Alkalinity												
Chloride												
Hydroxide Alkalinity												
Nitrate												
pH	7.69	7.09	6.96	7.28	7.49	6.86	6.98	7.71	7.7	6.79	7.28	7.47
Specific Conductivity (umhos/cm)	5180	<5520 UJ	5780	<5010 UJ	3430	<6740 UJ	7760	<2420 UJ	2360	12400	11100	4080
Sulfate												
Total Alkalinity												
Total Dissolved Solids	4000	4560	4940	3730	2470	5780	6700	1480	1320	9340	9700	2320
Total Organic Carbon												
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Location / Sampling Date	EP-23 3/28/2007	EP-23 6/12/2007	EP-23 8/6/2007	EP-23 11/27/2007	EP-24 1/31/2007	EP-24 8/13/2007	EP-25 2/5/2007	EP-25 8/13/2007	EP-26 1/18/2007	EP-26 3/27/2007	EP-26 6/12/2007	EP-26 8/6/2007
Total Metals (mg/L)												
Aluminum												
Antimony												
Arsenic			1.14		<0.00489	0.089	1.22	1.59	0.254			0.311
Barium												
Beryllium												
Cadmium			<0.0014		<0.000268	0.003	0.011	0.031	0.327			0.357
Calcium												
Chromium			<0.0009		<0.00357	0.004	<0.00357	<0.0009	<0.00357			<0.0009
Cobalt												
Copper			0.02		0.029	0.184	0.253	0.631	<0.00127			0.007
Iron			1.92		5.68	27.3	14.8	22.8	0.111			0.236
Lead			<0.0074		<0.0031 UJ	0.028	0.164	0.282	<0.0031			<0.0074
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium			<0.0131		<0.005	<0.0131	<0.005	0.106	1.58			1.49
Silver												
Sodium												
Thallium												
Vanadium												
Zinc			0.041		0.006	0.095	0.141	0.34	1.4			1.46
Dissolved Metals (mg/L)												
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-23 3/28/2007	EP-23 6/12/2007	EP-23 8/6/2007	EP-23 11/27/2007	EP-24 1/31/2007	EP-24 8/13/2007	EP-25 2/5/2007	EP-25 8/13/2007	EP-26 1/18/2007	EP-26 3/27/2007	EP-26 6/12/2007	EP-26 8/6/2007
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												
Water Quality Parameters (mg/L)												
Bromide												
Phosphate												
Bicarbonate Alkalinity												
Carbonate Alkalinity												
Chloride												
Hydroxide Alkalinity												
Nitrate												
pH			7.31		6.98	7.19	7.12	6.91	6.76			7.17
Specific Conductivity (umhos/cm)			3350		4400	3680	<4760 UJ	4520	5830			5420
Sulfate												
Total Alkalinity												
Total Dissolved Solids			1940		2940	2540	3130	2740	4080			4260
Total Organic Carbon												
Volatile Organic Compounds (mg/L)												
Benzene	0.0107	0.0071	0.0066	0.0067 J						<0.001	<0.001	<0.001
Ethylbenzene	0.0062	0.0033	0.0034	0.0041 J						<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	0.0004 J						<0.001	<0.001	<0.001
Total Xylenes	0.0013	0.002	<0.001	0.0023 J						<0.001	<0.001	<0.001
MTBE				<0.00047 UJ								
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics				0.914								
Gasoline Range Organics				<0.99								
Total Petroleum Hydrocarbons	<5	<5	<5							<5	<5	<5

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-26 11/27/2007	EP-29 2/5/2007	EP-29 7/30/2007	EP-35 2/5/2007	EP-35 7/30/2007	EP-4 1/31/2007	EP-4 7/30/2007	EP-43 1/31/2007	EP-43 8/13/2007	EP-49 1/9/2007	EP-5 7/30/2007	EP-51 1/9/2007
Total Metals (mg/L)												
Aluminum										<0.00148		<0.00148
Antimony										2.02		<0.0116
Arsenic		0.266	0.195	0.327	0.49	0.141	0.171	0.484	0.405	87.3	0.155	0.144
Barium										0.032		0.018
Beryllium										<0.000178		<0.000178
Cadmium		0.004	<0.0014	<0.000268	<0.0014	<0.000268	<0.0014	<0.000268	0.002	0.205	0.002	0.042
Calcium										556		933
Chromium		0.079	0.091	0.009	0.004	<0.00357	<0.0009	0.005	0.019	<0.00357	0.01	0.1
Cobalt										0.045		<0.00293
Copper		0.01	0.013	0.011	0.003	<0.00127	0.009	0.021	0.054	1.2	0.114	0.08
Iron		0.509	0.605	0.186	0.067	0.799	1.16	21.6	1.89	93.6	10.3	0.744
Lead		<0.0031	0.015	<0.0031	<0.0074	<0.0031 UJ	0.013	0.072 J	0.054	0.302	0.038	<0.0031
Magnesium										130		772
Manganese										17.5		1.35
Nickel										0.069		0.41
Phosphorus										0.838		<0.0229
Potassium										242		55
Selenium		0.532	0.386	0.901	0.637	<0.005	<0.0131	<0.005	0.035	<0.005	<0.0131	0.122
Silver										<0.000274		<0.000274
Sodium										1400		1910
Thallium										<0.0112		<0.0112
Vanadium										<0.005		<0.005
Zinc		0.032	0.014	0.03	0.01	<0.000666	0.01	0.02	0.031	75	0.155	0.347
Dissolved Metals (mg/L)												
Aluminum										<0.00984		<0.00984
Antimony										1.32		<0.00326
Arsenic										47.8		0.129
Barium										0.007 J		0.017
Beryllium										<0.000178		<0.000178
Cadmium										0.148		0.04
Calcium										539		920
Chromium										<0.00357		0.095
Cobalt										0.041		<0.00293
Copper										0.004 J		0.061
Iron										59.5		0.729
Lead										0.288		<0.00398
Magnesium										132		757
Manganese										17.1		1.33
Nickel										0.068		0.393
Phosphorus										0.093		<0.0229
Potassium										231		56.9
Selenium										<0.00556		0.111

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-26 11/27/2007	EP-29 2/5/2007	EP-29 7/30/2007	EP-35 2/5/2007	EP-35 7/30/2007	EP-4 1/31/2007	EP-4 7/30/2007	EP-43 1/31/2007	EP-43 8/13/2007	EP-49 1/9/2007	EP-5 7/30/2007	EP-51 1/9/2007
Silver										<0.000199		<0.000199
Sodium										1360		1900
Thallium										<0.0277		<0.0277
Vanadium										<0.005		<0.005
Zinc										72		0.347
Water Quality Parameters (mg/L)												
Bromide										2.15		1.12
Phosphate										<0.128		<0.128
Bicarbonate Alkalinity										502		206
Carbonate Alkalinity										<1		<1
Chloride										288		4830
Hydroxide Alkalinity										<1		<1
Nitrate										38.5		95.5
pH		7.47	7.59	6.94	6.92	7.55	7.56	6.89	7.44	6.32	7.45	6.36
Specific Conductivity (umhos/cm)		<4620 UJ	4450	<6170 UJ	5840	3810	3560	5410	7860	8660	5540	16900
Sulfate										4320		2270
Total Alkalinity										502		206
Total Dissolved Solids		2960	3180	5100	4640	2580	2320	3560	4980	6180	4100	9420
Total Organic Carbon										21.9		0.7 J
Volatile Organic Compounds (mg/L)												
Benzene	0.0003 J											
Ethylbenzene	<0.000336 UJ											
Toluene	0.0003 J											
Total Xylenes	<0.000603 UJ											
MTBE	<0.00047 UJ											
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics	<0.835											
Gasoline Range Organics	<0.99											
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-51 3/27/2007	EP-51 6/12/2007	EP-51 8/6/2007	EP-51 11/27/2007	EP-52 1/23/2007	EP-52 3/27/2007	EP-52 6/12/2007	EP-52 8/6/2007	EP-52 11/27/2007	EP-53 1/23/2007	EP-53 3/28/2007	EP-53 6/12/2007
Total Metals (mg/L)												
Aluminum												
Antimony												
Arsenic			0.16		0.332			0.366		27.2		
Barium												
Beryllium												
Cadmium			0.027		0.295			0.219		0.313		
Calcium												
Chromium			1.26		0.205			0.317		<0.00357		
Cobalt												
Copper			0.109		0.212			0.205		0.022		
Iron			3.91		2.46			2.84		0.936		
Lead			0.02		0.358			0.258		<0.0031		
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium			0.015 J		0.127			0.186		1.92		
Silver												
Sodium												
Thallium												
Vanadium												
Zinc			0.254		2.45			1.76		1.58		
Dissolved Metals (mg/L)												
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-51 3/27/2007	EP-51 6/12/2007	EP-51 8/6/2007	EP-51 11/27/2007	EP-52 1/23/2007	EP-52 3/27/2007	EP-52 6/12/2007	EP-52 8/6/2007	EP-52 11/27/2007	EP-53 1/23/2007	EP-53 3/28/2007	EP-53 6/12/2007
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												
Water Quality Parameters (mg/L)												
Bromide												
Phosphate												
Bicarbonate Alkalinity												
Carbonate Alkalinity												
Chloride												
Hydroxide Alkalinity												
Nitrate												
pH			6.67		6.51			6.42		7.15		
Specific Conductivity (umhos/cm)			13800		11800			11400		6440		
Sulfate												
Total Alkalinity												
Total Dissolved Solids			9990		10600			10300		5490		
Total Organic Carbon												
Volatile Organic Compounds (mg/L)												
Benzene	<0.001	<0.001	<0.001	<0.000247 UJ		<0.001	<0.001	<0.001	<0.000247 UJ		<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.000336 UJ		<0.001	<0.001	<0.001	<0.000336 UJ		<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.000257 UJ		<0.001	<0.001	<0.001	<0.000257 UJ		<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.001	<0.000603 UJ		<0.001	<0.001	<0.001	<0.000603 UJ		0.0015	<0.001
MTBE				<0.00047 UJ					<0.00047 UJ			
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics				<0.835					<0.835			
Gasoline Range Organics				<0.99					<0.99			
Total Petroleum Hydrocarbons	<5	<5	<5			<5	<5	<5			<5	<5

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Groundwater Sampling Results (ASARCO): 2007

Revised Supplemental Remedial Investgation Report
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Location / Sampling Date	EP-53 8/6/2007	EP-53 11/27/2007	EP-54 1/23/2007	EP-54 3/27/2007	EP-54 6/12/2007	EP-54 8/6/2007	EP-54 11/27/2007	EP-56 1/18/2007	EP-56 3/27/2007	EP-56 6/12/2007	EP-56 8/6/2007	EP-56 11/27/2007
Total Metals (mg/L)												
Aluminum												
Antimony												
Arsenic	27		8.69			3.66		3.3			5.13	
Barium												
Beryllium												
Cadmium	0.291		0.28			0.122		0.002			<0.0014	
Calcium												
Chromium	<0.0009		0.015			0.01		<0.00357			0.004	
Cobalt												
Copper	0.008		0.392			0.141		<0.00127			0.008	
Iron	0.91		4.1			1.73		0.1			3.21	
Lead	<0.0074		<0.0031			<0.0074		<0.0031			<0.0074	
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium	1.06		<0.005			0.151		<0.005			<0.0131	
Silver												
Sodium												
Thallium												
Vanadium												
Zinc	1.27		5.14			2.19		<0.000666			0.017	
Dissolved Metals (mg/L)												
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-53 8/6/2007	EP-53 11/27/2007	EP-54 1/23/2007	EP-54 3/27/2007	EP-54 6/12/2007	EP-54 8/6/2007	EP-54 11/27/2007	EP-56 1/18/2007	EP-56 3/27/2007	EP-56 6/12/2007	EP-56 8/6/2007	EP-56 11/27/2007
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												
Water Quality Parameters (mg/L)												
Bromide												
Phosphate												
Bicarbonate Alkalinity												
Carbonate Alkalinity												
Chloride												
Hydroxide Alkalinity												
Nitrate												
pH	6.97		6.97			6.83		7.23			7.6	
Specific Conductivity (umhos/cm)	6010		7840			2940		3080			2230	
Sulfate												
Total Alkalinity												
Total Dissolved Solids	4910		6870			2460		1880			1590	
Total Organic Carbon												
Volatile Organic Compounds (mg/L)												
Benzene	<0.001	0.001 J		0.0101	0.109	<0.001	0.0108 J		<0.001	<0.001	<0.001	<0.000247 UJ
Ethylbenzene	<0.001	<0.000336 UJ		<0.001	<0.001	<0.001	<0.000336 UJ		<0.001	<0.001	<0.001	<0.000336 UJ
Toluene	<0.001	0.0003 J		0.0013	0.0021	<0.001	0.0012 J		<0.001	<0.001	<0.001	<0.000257 UJ
Total Xylenes	<0.001	<0.000603 UJ		<0.001	<0.001	<0.001	0.0009 J		<0.001	<0.001	<0.001	<0.000603 UJ
MTBE		<0.00047 UJ					<0.00047 UJ					<0.00047 UJ
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics		0.872					<0.835					<0.835
Gasoline Range Organics		<0.99					<0.99					<0.99
Total Petroleum Hydrocarbons	<5			<5	<5	<5			<5	<5	<5	

Table I-2
Groundwater Sampling Results (ASARCO): 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-57 2/5/2007	EP-57 8/13/2007	EP-58 1/10/2007	EP-58 8/13/2007	EP-59 1/29/2007	EP-59 3/27/2007	EP-59 6/14/2007	EP-59 8/7/2007	EP-59 11/28/2007	EP-6 7/30/2007	EP-60 1/29/2007	EP-60 3/27/2007
Total Metals (mg/L)												
Aluminum			0.047									
Antimony			<0.0116									
Arsenic	<0.045 UJ	0.024	6.59	5.39	1.31			1.45		0.022	<0.00489	
Barium			0.028									
Beryllium			0.006									
Cadmium	<0.000268	<0.0014	0.002	<0.0014	<0.000268			0.005		<0.0014	<0.000268	
Calcium			533									
Chromium	<0.00357	<0.0009	0.007	0.009	0.035			0.007		<0.0009	0.654	
Cobalt			0.008									
Copper	<0.00127	<0.0014	0.005	0.009	0.005			0.003		0.003	0.014	
Iron	0.266	0.249	1.69	1.61	0.434			0.131		<0.0069	4.54	
Lead	<0.0031	<0.0074	0.095	0.064	<0.0031			<0.0074		<0.0074	<0.0031	
Magnesium			225									
Manganese			5.55									
Nickel			0.116									
Phosphorus			0.146									
Potassium			226									
Selenium	0.055	<0.0131	<0.005 UJ	<0.0131	0.182			0.149		<0.0131	<0.005	
Silver			<0.000274									
Sodium			1890									
Thallium			<0.0112									
Vanadium			<0.005									
Zinc	0.008	<0.0071	0.011	0.009 J	<0.000666			0.031		<0.0071	<0.000666	
Dissolved Metals (mg/L)												
Aluminum			<0.00984									
Antimony			<0.00326									
Arsenic			5.88									
Barium			0.023									
Beryllium			0.004									
Cadmium			0.002									
Calcium			541									
Chromium			<0.00357									
Cobalt			0.008									
Copper			0.005 J									
Iron			1.28									
Lead			0.091									
Magnesium			230									
Manganese			5.03									
Nickel			0.105									
Phosphorus			0.142									
Potassium			223									
Selenium			<0.00556									

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Groundwater Sampling Results (ASARCO): 2007

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Location Sampling Date	EP-57 2/5/2007	EP-57 8/13/2007	EP-58 1/10/2007	EP-58 8/13/2007	EP-59 1/29/2007	EP-59 3/27/2007	EP-59 6/14/2007	EP-59 8/7/2007	EP-59 11/28/2007	EP-6 7/30/2007	EP-60 1/29/2007	EP-60 3/27/2007
Silver			<0.000199									
Sodium			1850									
Thallium			<0.0277									
Vanadium			<0.005									
Zinc			0.01									
Water Quality Parameters (mg/L)												
Bromide			19.3									
Phosphate			<0.128									
Bicarbonate Alkalinity			860									
Carbonate Alkalinity			<1									
Chloride			829									
Hydroxide Alkalinity			<1									
Nitrate			<0.053									
pH	7.07	7.48	6.68	7.12	7.29			7.3		7.46	7.22	
Specific Conductivity (umhos/cm)	<7280 UJ	7310	11100	10100	5380			4250		4920	7190	
Sulfate			4480									
Total Alkalinity			860									
Total Dissolved Solids	6060	5780	6480	7740	4150			3030		3560	6190	
Total Organic Carbon			5.9									
Volatile Organic Compounds (mg/L)												
Benzene						<0.001	<0.001	0.0024	<0.000595			<0.001
Ethylbenzene						<0.001	<0.001	<0.001	<0.000377			<0.001
Toluene						<0.001	<0.001	<0.001	<0.000327			<0.001
Total Xylenes						<0.001	<0.001	0.0012	<0.000366			<0.001
MTBE									<0.000394			
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics									0.836			
Gasoline Range Organics									<0.99			
Total Petroleum Hydrocarbons						<5	<5	<5				<5

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-60 6/14/2007	EP-60 8/7/2007	EP-60 11/28/2007	EP-61 2/5/2007	EP-61 8/13/2007	EP-62 1/8/2007	EP-62 6/14/2007	EP-62 8/7/2007	EP-62 11/28/2007	EP-63 1/29/2007	EP-63 3/27/2007	EP-63 6/14/2007
Total Metals (mg/L)												
Aluminum						0.022 J						
Antimony						<0.0116						
Arsenic		<0.0043		<0.00489	0.008 J	1.08		1.33		0.027		
Barium						0.029						
Beryllium						0.003						
Cadmium		<0.0014		<0.000268	<0.0014	0.005		<0.0014		<0.000268		
Calcium						165						
Chromium		0.084		0.014	0.042	<0.00357		0.022		0.039		
Cobalt						<0.00293						
Copper		0.003		0.006	0.003	0.005		0.004		0.012		
Iron		0.641		1.27	2	0.098		0.481		0.725		
Lead		0.021		<0.0031	0.01	<0.0031		<0.0074		0.038		
Magnesium						68						
Manganese						0.004 J						
Nickel						0.007						
Phosphorus						0.126						
Potassium						59.7						
Selenium		0.05		0.271	0.199	<0.005		0.206		<0.005		
Silver						<0.000274						
Sodium						829						
Thallium						<0.0112						
Vanadium						<0.005						
Zinc		0.016		0.011	<0.0071	0.012		0.021		<0.000666		
Dissolved Metals (mg/L)												
Aluminum						<0.00984						
Antimony						<0.00326						
Arsenic						0.899						
Barium						0.022						
Beryllium						<0.000178						
Cadmium						<0.000577						
Calcium						140						
Chromium						<0.00357						
Cobalt						<0.00293						
Copper						<0.00127						
Iron						<0.00281						
Lead						<0.00398						
Magnesium						57						
Manganese						0.006 J						
Nickel						0.004 J						
Phosphorus						0.089						
Potassium						50.4						
Selenium						0.109 J						

Table I-2
Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-60 6/14/2007	EP-60 8/7/2007	EP-60 11/28/2007	EP-61 2/5/2007	EP-61 8/13/2007	EP-62 1/8/2007	EP-62 6/14/2007	EP-62 8/7/2007	EP-62 11/28/2007	EP-63 1/29/2007	EP-63 3/27/2007	EP-63 6/14/2007
Silver						<0.000199						
Sodium						735						
Thallium						<0.0277						
Vanadium						<0.005						
Zinc						0.006						
Water Quality Parameters (mg/L)												
Bromide						2.14						
Phosphate						<0.128						
Bicarbonate Alkalinity						362						
Carbonate Alkalinity						<1						
Chloride						415						
Hydroxide Alkalinity						<1						
Nitrate						3.8						
pH		7.23		7.04	6.96	7.24		7.38		7.12		
Specific Conductivity (umhos/cm)		6750		<5880 UJ	6340	3990		3440		6340		
Sulfate						1290						
Total Alkalinity						362						
Total Dissolved Solids		5560		4740	4920	2350		2350		4760		
Total Organic Carbon						1.66 J						
Volatile Organic Compounds (mg/L)												
Benzene	<0.001	<0.001	<0.000595				<0.001	<0.001	<0.000595		<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.000377				<0.001	<0.001	<0.000377		<0.001	<0.001
Toluene	<0.001	<0.001	<0.000327				<0.001	<0.001	0.0011		<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.000366				<0.001	<0.001	0.0009		<0.001	<0.001
MTBE			<0.000394						<0.000394			
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics			<0.835						<0.835			
Gasoline Range Organics			<0.99						<0.99			
Total Petroleum Hydrocarbons	<5	<5					<5	<5			<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-63 8/7/2007	EP-63 11/28/2007	EP-64 1/29/2007	EP-64 3/27/2007	EP-64 6/14/2007	EP-64 8/7/2007	EP-64 11/28/2007	EP-65 2/5/2007	EP-65 8/13/2007	EP-66 1/29/2007	EP-66 3/27/2007	EP-66 6/14/2007
Total Metals (mg/L)												
Aluminum												
Antimony												
Arsenic	<0.0043		<0.00489			0.025		<0.039 UJ	<0.0043	7.02		
Barium												
Beryllium												
Cadmium	0.004		<0.000268			0.004		<0.000268	<0.0014	<0.000268		
Calcium												
Chromium	0.029		<0.00357			0.004		<0.00357	<0.0009	<0.00357		
Cobalt												
Copper	0.009		0.006			0.011		<0.00127	<0.0014	<0.00127		
Iron	0.35		0.651			0.653		0.068	0.116	0.044		
Lead	0.019		<0.0031			<0.0074		<0.0031	<0.0074	<0.0031		
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium	0.087		0.306			0.304		0.081	0.105	0.232		
Silver												
Sodium												
Thallium												
Vanadium												
Zinc	0.031		<0.000666			0.027		0.007	0.008 J	<0.000666		
Dissolved Metals (mg/L)												
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-63 8/7/2007	EP-63 11/28/2007	EP-64 1/29/2007	EP-64 3/27/2007	EP-64 6/14/2007	EP-64 8/7/2007	EP-64 11/28/2007	EP-65 2/5/2007	EP-65 8/13/2007	EP-66 1/29/2007	EP-66 3/27/2007	EP-66 6/14/2007
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												
Water Quality Parameters (mg/L)												
Bromide												
Phosphate												
Bicarbonate Alkalinity												
Carbonate Alkalinity												
Chloride												
Hydroxide Alkalinity												
Nitrate												
pH	7.11		7.84			7.54		7.2	7.19	7.36		
Specific Conductivity (umhos/cm)	7160		8540			7870		<5260 UJ	5130	6770		
Sulfate												
Total Alkalinity												
Total Dissolved Solids	5020		7160			5900		4050	3680	5680		
Total Organic Carbon												
Volatile Organic Compounds (mg/L)												
Benzene	<0.001	<0.000595		<0.001	<0.001	<0.001	<0.000247				<0.001	<0.001
Ethylbenzene	<0.001	<0.000377		<0.001	<0.001	<0.001	<0.000336				<0.001	<0.001
Toluene	<0.001	<0.000327		<0.001	<0.001	<0.001	<0.000257				<0.001	<0.001
Total Xylenes	<0.001	<0.000366		<0.001	0.001	<0.001	<0.000603				<0.001	<0.001
MTBE		<0.000394					<0.00047					
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics		<0.835					1.05					
Gasoline Range Organics		<0.99					<0.99					
Total Petroleum Hydrocarbons	<5			<5	<5	<5					<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-66 8/7/2007	EP-66 11/28/2007	EP-67 1/11/2007	EP-67 7/31/2007	EP-68 1/8/2007	EP-68 7/31/2007	EP-7 1/31/2007	EP-7 7/30/2007	EP-70 1/11/2007	EP-70 7/31/2007	EP-71 1/11/2007	EP-71 7/31/2007
Total Metals (mg/L)												
Aluminum					<0.00148							
Antimony					<0.0116							
Arsenic	7.82		0.092	0.018	<0.00489	<0.0043	<0.00489	0.042	0.46	0.533	0.113	0.143
Barium					0.014							
Beryllium					0.004							
Cadmium	0.002		<0.000268	<0.0014	0.003	<0.0014	<0.000268	<0.0014	0.005	0.005	<0.000268	<0.0014
Calcium					292							
Chromium	<0.0009		<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009
Cobalt					<0.00293							
Copper	0.007		0.016	0.012	0.003 J	0.005	0.009	0.007	0.005	0.01	<0.00127	0.006
Iron	0.299		0.049	0.033	0.057	0.101	0.981	0.552	0.018	0.027	0.058	0.017
Lead	<0.0074		<0.0031	<0.0074	<0.0031	<0.0074	0.041 J	0.019	<0.0031	<0.0074	<0.0031	<0.0074
Magnesium					119							
Manganese					0.002 J							
Nickel					0.006							
Phosphorus					0.032 J							
Potassium					14.6							
Selenium	0.248		<0.107 UJ	0.15	0.213	0.193	<0.005	<0.0131	<0.238 UJ	0.176	<0.19 UJ	0.198
Silver					<0.000274							
Sodium					798							
Thallium					<0.0112							
Vanadium					<0.005							
Zinc	0.029		0.071	0.01	0.01	<0.0071	0.004 J	<0.0071	0.15	0.106	0.034	<0.0071
Dissolved Metals (mg/L)												
Aluminum					<0.00984							
Antimony					<0.00326							
Arsenic					<0.0036							
Barium					0.01							
Beryllium					<0.000178							
Cadmium					<0.000577							
Calcium					290							
Chromium					<0.00357							
Cobalt					<0.00293							
Copper					<0.00127							
Iron					<0.00281							
Lead					<0.00398							
Magnesium					118							
Manganese					0.003 J							
Nickel					<0.00045							
Phosphorus					<0.0229							
Potassium					14							
Selenium					0.145 J							

Table I-2
Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-66 8/7/2007	EP-66 11/28/2007	EP-67 1/11/2007	EP-67 7/31/2007	EP-68 1/8/2007	EP-68 7/31/2007	EP-7 1/31/2007	EP-7 7/30/2007	EP-70 1/11/2007	EP-70 7/31/2007	EP-71 1/11/2007	EP-71 7/31/2007
Silver					<0.000199							
Sodium					805							
Thallium					<0.0277							
Vanadium					<0.005							
Zinc					<0.003							
Water Quality Parameters (mg/L)												
Bromide					2.32							
Phosphate					<0.128							
Bicarbonate Alkalinity					460							
Carbonate Alkalinity					<1							
Chloride					575							
Hydroxide Alkalinity					<1							
Nitrate					18.1							
pH	7.07		6.61	7	7.13	7.2	7.36	7.49	6.74	7.06	6.8	7.1
Specific Conductivity (umhos/cm)	7370		5050	4980	4980	4550	5760	6060	8520	7720	8030	7310
Sulfate					1740							
Total Alkalinity					460							
Total Dissolved Solids	6120		3840	4220	3040	3560	4240	4310	6340	6560	6080	6300
Total Organic Carbon					1.67							
Volatile Organic Compounds (mg/L)												
Benzene	<0.001	0.0003 J										
Ethylbenzene	<0.001	<0.000336 UJ										
Toluene	<0.001	<0.000257 UJ										
Total Xylenes	<0.001	<0.000603 UJ										
MTBE		<0.00047 UJ										
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics		<0.835										
Gasoline Range Organics		<0.99										
Total Petroleum Hydrocarbons	<5											

Table I-2
Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-72 1/15/2007	EP-72 7/31/2007	EP-73 1/23/2007	EP-73 8/6/2007	EP-75 1/9/2007	EP-75 8/6/2007	EP-76 1/18/2007	EP-76 8/6/2007	EP-77 1/8/2007	EP-77 8/3/2007	EP-79 1/25/2007	EP-79 8/9/2007
Total Metals (mg/L)												
Aluminum					<0.00148				0.11			
Antimony					<0.0116				<0.0116			
Arsenic	0.346	0.27	<0.00489 UJ	<0.0043	16.5	26	0.404	0.587	5.13	7	<0.005	<0.0043
Barium					0.028				0.016			
Beryllium					0.007				0.003			
Cadmium	0.006	0.005	<0.000268	<0.0014	<0.000268	0.007	<0.000268	0.007	0.004	<0.0014	<0.0004	<0.0014
Calcium					467				65.3			
Chromium	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	<0.0009	<0.0014	0.006
Cobalt					<0.00293				<0.00293			
Copper	0.014	0.017	<0.00127	<0.0014	0.013	0.014	0.009	0.011	0.004 J	0.003	<0.0038	0.005
Iron	0.038	0.046	0.015	0.065	0.148	0.253	0.009 J	0.136	0.105	0.541	0.062	0.237
Lead	0.027	0.017	<0.0031	<0.0074	<0.0031	0.014	<0.0031	<0.0074	<0.0031	<0.0074	<0.00167	<0.0074
Magnesium					289				18.3			
Manganese					1.18				0.006 J			
Nickel					0.01				<0.00045			
Phosphorus					0.095				0.057			
Potassium					662				16.2			
Selenium	18.2	9.89	0.712	0.449	3.3	4.79	0.193	0.157	0.076	0.021	0.168	0.149
Silver					<0.000274				<0.000274			
Sodium					3020				604			
Thallium					0.425				0.027 J			
Vanadium					0.041				0.057			
Zinc	0.111	0.041	0.01	0.018	0.029	0.059	0.074	0.13	<0.000666	0.012	0.01	0.011
Dissolved Metals (mg/L)												
Aluminum					<0.00984				<0.00984			
Antimony					<0.00326				<0.00326			
Arsenic					15.8				4.76			
Barium					0.028				0.013			
Beryllium					0.007				<0.000178			
Cadmium					<0.000577				<0.000577			
Calcium					423				63.9			
Chromium					<0.00357				<0.00357			
Cobalt					<0.00293				<0.00293			
Copper					0.012 J				<0.00127			
Iron					0.003 J				<0.00281			
Lead					<0.00398				<0.00398			
Magnesium					262				18.2			
Manganese					1.17				0.005 J			
Nickel					0.009				<0.00045			
Phosphorus					0.093				0.062			
Potassium					594				15.9			
Selenium					3.29				<0.00556 UJ			

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-72 1/15/2007	EP-72 7/31/2007	EP-73 1/23/2007	EP-73 8/6/2007	EP-75 1/9/2007	EP-75 8/6/2007	EP-76 1/18/2007	EP-76 8/6/2007	EP-77 1/8/2007	EP-77 8/3/2007	EP-79 1/25/2007	EP-79 8/9/2007
Silver					<0.000199				<0.000199			
Sodium					3280				623			
Thallium					0.42				<0.0277			
Vanadium					0.039				0.058			
Zinc					0.029				<0.003			
Water Quality Parameters (mg/L)												
Bromide					1.07				<0.214			
Phosphate					<0.128				<0.128			
Bicarbonate Alkalinity					464				503			
Carbonate Alkalinity					<1				<1			
Chloride					299				120			
Hydroxide Alkalinity					<1				<1			
Nitrate					163				1.36			
pH	7.12	7.06	7.37	7.27	6.8	7.12	7.3	7.42	7.51	7.94	7.72	7.51
Specific Conductivity (umhos/cm)	19900	13500	4870	4790	16200	17000	5310	4930	2680	1980	5620	5880
Sulfate					9240				906			
Total Alkalinity					464				503			
Total Dissolved Solids	21600	13000	3460	3690	11500	16800	3720	3730	1790	1360	3980	4330
Total Organic Carbon					7.44				3.1			
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-80 1/29/2007	EP-80 8/9/2007	EP-81 1/8/2007	EP-81 8/9/2007	EP-82 1/25/2007	EP-82 8/9/2007	EP-83 1/24/2007	EP-83 8/7/2007	EP-84 1/24/2007	EP-84 8/7/2007	EP-85 1/8/2007	EP-85 8/9/2007
Total Metals (mg/L)												
Aluminum			<0.00148								<0.00148	
Antimony			<0.0116								0.049 J	
Arsenic	<0.00489	0.015	0.095	0.026	<0.005	<0.0043	<0.005	<0.0043	<0.005	0.036	2.45	1.83
Barium			0.03								0.043	
Beryllium			<0.000178								<0.000178	
Cadmium	<0.000268	<0.0014	0.004	<0.0014	<0.0004	<0.0014	<0.0004	<0.0014	<0.0004	<0.0014	0.005	<0.0014
Calcium			89.4								121	
Chromium	<0.00357	<0.0009	<0.00357	<0.0009	<0.0014	<0.0009	<0.0014	<0.0009	<0.0014	<0.0009	<0.00357	0.001
Cobalt			<0.00293								<0.00293	
Copper	<0.00127	0.006	0.007	0.01	0.028	0.021	<0.0038	<0.0014	0.02	0.019	0.005	0.003
Iron	0.865	0.311	0.008 J	0.303	0.1	0.351	0.049	0.583	0.02	<0.038 UJ	0.007 J	0.008
Lead	0.026	0.013	<0.0031	<0.0074	<0.00167	0.013	<0.00167	<0.0074	<0.00167	<0.0074	<0.0031	<0.0074
Magnesium			34.6								52.4	
Manganese			0.007 J								<0.000297	
Nickel			<0.00045								<0.00045	
Phosphorus			0.056								0.102	
Potassium			10.3								49.7	
Selenium	<0.005	<0.0131	0.058	0.03	0.083	0.057	<0.00163	0.037	<0.00163	<0.0131	0.268	0.163
Silver			<0.000274								<0.000274	
Sodium			105								507	
Thallium			<0.0112								<0.0112	
Vanadium			0.009								0.035	
Zinc	<0.000666	0.032	0.011	0.016	0.039	0.019	0.014	0.008 J	0.027	0.008 J	0.023	<0.0071
Dissolved Metals (mg/L)												
Aluminum			0.059								<0.00984	
Antimony			<0.00326								<0.00326	
Arsenic			0.103								2.39	
Barium			0.027								0.039	
Beryllium			<0.000178								<0.000178	
Cadmium			<0.000577								<0.000577	
Calcium			91								118	
Chromium			<0.00357								<0.00357	
Cobalt			<0.00293								<0.00293	
Copper			0.007 J								<0.00127	
Iron			0.109								<0.00281	
Lead			<0.00398								<0.00398	
Magnesium			35								51.2	
Manganese			0.009 J								0.002 J	
Nickel			<0.00045								<0.00045	
Phosphorus			0.028 J								0.069	
Potassium			9.86								45.4	
Selenium			<0.00556 UJ								0.19 J	

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-80 1/29/2007	EP-80 8/9/2007	EP-81 1/8/2007	EP-81 8/9/2007	EP-82 1/25/2007	EP-82 8/9/2007	EP-83 1/24/2007	EP-83 8/7/2007	EP-84 1/24/2007	EP-84 8/7/2007	EP-85 1/8/2007	EP-85 8/9/2007
Silver			<0.000199								<0.000199	
Sodium			104								511	
Thallium			<0.0277								0.038	
Vanadium			0.006								0.028	
Zinc			0.008								0.01	
Water Quality Parameters (mg/L)												
Bromide			<0.214								0.884 J	
Phosphate			<0.128								<0.128	
Bicarbonate Alkalinity			146								316	
Carbonate Alkalinity			<1								<1	
Chloride			33.8								156	
Hydroxide Alkalinity			<1								<1	
Nitrate			2.7								8.2	
pH	7.26	7.36	7.61	7.58	7.55	7.24	7.61	7.5	7.66	7.49	7.34	7.42
Specific Conductivity (umhos/cm)	5480	4150	1160	899	3550	3210	3520	3780	2190	1470	3080	3040
Sulfate			382								1000	
Total Alkalinity			146								316	
Total Dissolved Solids	4260	3120	742	<558 UJ	2630	2440	2500	2560	1560	972	1900	2240
Total Organic Carbon			0.68 J								1.36 J	
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-86 1/25/2007	EP-86 8/9/2007	EP-88 1/18/2007	EP-88 8/3/2007	EP-89 1/11/2007	EP-89 7/31/2007	EP-90 1/15/2007	EP-90 7/31/2007	EP-94 1/24/2007	EP-94 8/7/2007	EP-95 1/24/2007	EP-95 8/7/2007
Total Metals (mg/L)												
Aluminum												
Antimony												
Arsenic	<0.005	<0.0043	<0.00489	<0.0043	<0.00489	<0.0043	0.122	0.166	<0.005	<0.0043	<0.005	<0.0043
Barium												
Beryllium												
Cadmium	<0.0004	<0.0014	<0.000268	0.003	<0.000268	<0.0014	0.021	0.035	<0.0004	<0.0014	<0.0004	<0.0014
Calcium												
Chromium	<0.0014	0.003	<0.00357	<0.0009	<0.00357	<0.0009	<0.00357	0.004	<0.0014	<0.0009	<0.0014	<0.0009
Cobalt												
Copper	<0.0038	0.002	0.004 J	0.005	<0.00127	0.008	<0.00127	0.006	0.006	<0.0014	<0.0038	<0.0014
Iron	0.067	0.235	0.103	0.056	0.013	0.08	0.083	0.265	0.055	0.06	0.019	0.203
Lead	<0.00167	<0.0074	<0.0031	<0.0074	<0.0031	<0.0074	<0.0031	<0.0074	<0.00167	<0.0074	<0.00167	<0.0074
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium	<0.00163	0.021	<0.005	0.059	<0.005	<0.0131	2.2	1.1	<0.00163	0.017 J	<0.00163	0.023
Silver												
Sodium												
Thallium												
Vanadium												
Zinc	0.006	<0.0071	<0.000666	0.017	0.056	0.011	0.042	0.061	0.022	0.011	0.009	<0.0071
Dissolved Metals (mg/L)												
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium												
Manganese												
Nickel												
Phosphorus												
Potassium												
Selenium												

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Groundwater Sampling Results (ASARCO): 2007

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Location / Sampling Date	EP-86 1/25/2007	EP-86 8/9/2007	EP-88 1/18/2007	EP-88 8/3/2007	EP-89 1/11/2007	EP-89 7/31/2007	EP-90 1/15/2007	EP-90 7/31/2007	EP-94 1/24/2007	EP-94 8/7/2007	EP-95 1/24/2007	EP-95 8/7/2007
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												
Water Quality Parameters (mg/L)												
Bromide												
Phosphate												
Bicarbonate Alkalinity												
Carbonate Alkalinity												
Chloride												
Hydroxide Alkalinity												
Nitrate												
pH	7.82	7.75	7.21	7.64	7.03	7.26	7.34	7.21	7.5	7.33	7.73	7.56
Specific Conductivity (umhos/cm)	2690	2680	4780	4530	3330	3040	<5280 UJ	4600	4280	4340	2620	3700
Sulfate												
Total Alkalinity												
Total Dissolved Solids	1740	1770	3060	3020	2160	2180	4120	2680	3140	2880	1750	2610
Total Organic Carbon												
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
MTBE												
Petroleun Hydrocarbons (mg/L)												
Diesel Range Organics												
Gasoline Range Organics												
Total Petroleum Hydrocarbons												

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Groundwater Sampling Results (ASARCO): 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location Sampling Date	EP-96 1/24/2007	EP-97 1/24/2007	EP-97 8/7/2007	EP-98 1/24/2007	EP-98 8/7/2007
Total Metals (mg/L)					
Aluminum					
Antimony					
Arsenic	<0.005	0.08	0.146	<0.005	<0.0043
Barium					
Beryllium					
Cadmium	<0.0004	0.015	0.007	<0.0004	<0.0014
Calcium					
Chromium	<0.0014	<0.0014	<0.0009	<0.0014	<0.0009
Cobalt					
Copper	<0.0038	0.181	0.268	0.02	0.009
Iron	0.236	0.171	1.91	0.258	0.593
Lead	<0.00167	<0.00167	0.082	<0.00167	<0.0074
Magnesium					
Manganese					
Nickel					
Phosphorus					
Potassium					
Selenium	<0.00163	<0.00163	<0.0131	0.85	0.589
Silver					
Sodium					
Thallium					
Vanadium					
Zinc	0.033	0.131	0.112	0.055	0.019
Dissolved Metals (mg/L)					
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Nickel					
Phosphorus					
Potassium					
Selenium					

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Groundwater Sampling Results (ASARCO): 2007

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Location Sampling Date	EP-96 1/24/2007	EP-97 1/24/2007	EP-97 8/7/2007	EP-98 1/24/2007	EP-98 8/7/2007
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					
Water Quality Parameters (mg/L)					
Bromide					
Phosphate					
Bicarbonate Alkalinity					
Carbonate Alkalinity					
Chloride					
Hydroxide Alkalinity					
Nitrate					
pH	7.53	7.42	7.15	7.49	7.42
Specific Conductivity (umhos/cm)	4350	5090	3960	8000	6600
Sulfate					
Total Alkalinity					
Total Dissolved Solids	3170	3840	2930	6480	5820
Total Organic Carbon					
Volatile Organic Compounds (mg/L)					
Benzene					
Ethylbenzene					
Toluene					
Total Xylenes					
MTBE					
Petroleun Hydrocarbons (mg/L)					
Diesel Range Organics					
Gasoline Range Organics					
Total Petroleum Hydrocarbons					

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-100 2/11/2008	EP-100 9/10/2008	EP-101 2/4/2008	EP-101 9/9/2008	EP-102 2/4/2008	EP-102 9/9/2008	EP-103 2/4/2008	EP-103 9/9/2008	EP-104 1/31/2008	EP-104 9/8/2008
Total Metals (mg/L)										
Arsenic	<0.0026	0.0164	7.89	16.1	0.296	0.243	<0.0026	<0.0085	0.071	0.0667
Cadmium	0.021	0.0192	3.37	9.05	0.22	0.338	0.051	0.114	<0.0004	<0.0011
Chromium	0.006	0.0036 J	0.005	<0.00201	0.003	<0.00201	<0.0005	<0.00201	<0.0005	<0.00201
Copper	0.023	0.0175	0.04	0.0396	0.03	0.0141	<0.0009	0.0038 J	0.006	0.0053
Iron	0.396	0.685	0.852	0.763	0.649	0.477	0.143	0.264	0.056	0.0502
Lead	<0.0036	<0.194 UJ	0.019	0.0554 J	<0.0036	0.0072 J	<0.0036	<0.0046 UJ	<0.0036	<0.0046 UJ
Selenium	0.58	0.535	3.34	6.52	1.45	3.32	0.548	0.601	0.046	0.0985
Zinc	0.256	<0.183 UJ	0.881	1.24	0.631	1.18	0.059	0.124	0.016	0.0134
Water Quality Parameters (mg/L)										
pH (SU)	7.08	7.02	6.9	6.88	7.23	7.19	6.87	6.87	7.54	7.46
Specific Conductivity (umhos/cm)	10200	9860	14000	20400	2020	2420	5660	5230	4360	4440
Total Dissolved Solids	8220	7980	10800	17600	1390	1610 J	4740	4420 J	3024	3200
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-105 1/31/2008	EP-105 9/8/2008	EP-106 1/31/2008	EP-106 9/8/2008	EP-107 1/31/2008	EP-107 9/17/2008	EP-108 2/8/2008	EP-108 9/15/2008	EP-109 2/8/2008	EP-109 9/15/2008
Total Metals (mg/L)										
Arsenic	0.062	0.0767	<0.0026	<0.0085	<0.0026	0.041	0.645	0.655	<0.0026	<0.0085
Cadmium	0.002	0.0021	0.002	0.0016 J	<0.0004	<0.0011	<0.0004	<0.0011	<0.0004	0.002
Chromium	0.002	<0.00201	<0.0005	<0.00201	<0.0005	<0.00201	<0.0005	0.003 J	<0.0005	0.003 J
Copper	0.022	0.0175	0.007	0.0091	0.008	0.005	0.005	0.008	0.005	0.006
Iron	0.645	0.276	0.543	0.289	0.23	0.922	0.239 J	1.51 J	0.328 J	2.26 J
Lead	<0.0036	<0.0046 UJ	<0.0036	0.0605 J	<0.0036	<0.0046	<0.0036	<0.0046	<0.0036	<0.0046
Selenium	<0.0066	0.0483	0.075	0.116	0.546	0.599	<0.045 UJ	0.052	<0.079 UJ	0.051
Zinc	0.062	0.0518	0.012	0.0336	0.018	0.019	0.016	0.022	0.012	0.017
Water Quality Parameters (mg/L)										
pH (SU)	7.84	7.73	7.29	7.23	7.4	7.26	7.45	7.47	7.46	7.54
Specific Conductivity (umhos/cm)	3760	3930	4310	4350	5540	5920	3510	3370	3490	3610
Total Dissolved Solids	2822	2920	3228	3380	4550	4545	2398	2302	2366	2402
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-110 1/31/2008	EP-110 9/8/2008	EP-111 2/14/2008	EP-111 9/17/2008	EP-112 2/14/2008	EP-112 9/17/2008	EP-114 1/29/2008	EP-114 9/18/2008	EP-116 1/29/2008	EP-116 9/18/2008
Total Metals (mg/L)										
Arsenic	<0.0026	0.0141	1.6	0.879	0.037 J	<0.0085	17.6	8.4	0.229	0.24
Cadmium	0.004	0.0028	0.003	<0.0011	<0.0004	<0.0011	0.099	0.108	0.564	2.16
Chromium	<0.0005	<0.00201	<0.0005	<0.00201	<0.0005	<0.00201	<0.005 UJ	<0.00201	<0.0005	0.003 J
Copper	0.007	0.0091	0.041	0.027	<0.0009	<0.00129	0.14	0.041	1.19	19
Iron	0.066	0.0126	3.22	2.13	0.392	0.308	4.08	5.97	3.23	2.94
Lead	<0.0036	<0.0046 UJ	<0.0036	0.011	<0.0036	<0.0046	0.212	0.128	0.155	0.541
Selenium	<0.0066	<0.0106	<0.0066	<0.0106	<0.0066	<0.0106	<0.08 UJ	0.067	0.241	0.174
Zinc	0.019	0.0448	0.03	0.025	0.009	0.014	13.7	11	1.74	13.6
Water Quality Parameters (mg/L)										
pH (SU)	7.51	7.29	7.23	7.17	7.33	7.21	6.74	6.84	8.86	6.56
Specific Conductivity (umhos/cm)	2900	2960	5790	5780	5020	5320	4500	4060	4370	2730
Total Dissolved Solids	1976	2150	4150	4020	3480	3300	4140	4140	3180	1740 J
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-117 1/29/2008	EP-117 9/18/2008	EP-119 2/13/2008	EP-119 9/16/2008	EP-12 2/14/2008	EP-12 9/9/2008	EP-120 2/8/2008	EP-120 9/15/2008	EP-122 2/8/2008	EP-122 9/16/2008
Total Metals (mg/L)										
Arsenic	4.08	6.61	1.62	1.57	0.145	0.217	0.159	0.201	1.41	1.63
Cadmium	0.13	0.178	0.003	<0.0011	<0.0004	0.0026	<0.0004	<0.0011	<0.0004	<0.0011
Chromium	<0.0005	<0.00201	<0.0005	<0.00201	0.005	0.0033 J	<0.0005	0.014	<0.0005	<0.00201
Copper	0.009	0.018	0.011	0.009	0.024	0.0044 J	0.016	0.203	0.003 J	0.004 J
Iron	0.026	0.062	0.97	0.026	1.46	2.87	0.34 J	11	0.371 J	0.143
Lead	<0.0036	0.012	<0.0036	<0.0046	<0.0036	<0.0046 UJ	<0.0036	<0.0046	<0.0036	<0.0046
Selenium	3	2.28	0.184 J	0.211	17.7	3.32	<0.052 UJ	0.061	0.18	0.166
Zinc	0.161	0.233	0.025	0.019	0.032	0.0548	0.022	0.244	0.009	0.006
Water Quality Parameters (mg/L)										
pH (SU)	7.37	7.43	7.42	7.44	7.21	7.32	7.53	7.42	7.62	7.58
Specific Conductivity (umhos/cm)	4580	4480	3510	3270	3070	3390	3900	2510	2840	2570
Total Dissolved Solids	3520	3540	2530	2320	2190	2510 J	2530	1734	2004	1734
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-123 2/7/2008	EP-123 9/12/2008	EP-124 2/19/2008	EP-124 9/17/2008	EP-125 2/6/2008	EP-125 9/12/2008	EP-126 2/6/2008	EP-126 9/12/2008	EP-127 2/14/2008	EP-127 9/17/2008
Total Metals (mg/L)										
Arsenic	0.981	1.38	4.06	3.26	<0.0026	0.0254	0.063	0.0674	2.38	2.78
Cadmium	<0.0004	<0.0011	0.241	0.111	0.006	0.0149	0.004	0.0197	<0.0004	<0.0011
Chromium	0.01	0.004 J	0.03	0.019	<0.0005	<0.00201	3.36	1.18	<0.0005	<0.00201
Copper	0.006	0.004 J	0.156	0.096	0.046	0.0227	0.007	0.0174	<0.0009	<0.00129
Iron	0.062	0.042	27.2	16.4	0.335	0.206	0.156	0.34	0.421	1.67
Lead	<0.0036	<0.0046 UJ	0.148	0.095	<0.0036	<0.0046 UJ	<0.0036	0.0112 J	<0.0036	0.015
Selenium	0.115	0.067	<0.0066	<0.0106	0.39	0.479	0.839	0.84	<0.0066	<0.0106
Zinc	0.006	0.022	0.606	0.319	2.46	1.54	0.035	0.18	0.018	0.017
Water Quality Parameters (mg/L)										
pH (SU)	7.52	7.64	7.84	7.89	6.67	6.76	7.34	7.33	7.22	7.21
Specific Conductivity (umhos/cm)	3940	3620	1540	1830	8520	8400	4840	4620	5740	6400
Total Dissolved Solids	2920	2540	1110	1110	7740	7780	4400	4150	4180	4370
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-128 2/14/2008	EP-128 9/17/2008	EP-129 2/7/2008	EP-129 9/15/2008	EP-130 2/11/2008	EP-130 9/10/2008	EP-131 2/11/2008	EP-131 9/10/2008	EP-132 2/13/2008	EP-132 9/16/2008
Total Metals (mg/L)										
Arsenic	0.824	0.795	<0.0026	<0.0085	<0.0026	0.0207	1.7	1.61	1.96	1.94
Cadmium	0.003	<0.0011	<0.0004	0.003	0.008	0.0266	0.009	0.0188	<0.0004	<0.0011
Chromium	<0.0005	0.012	<0.0005	0.018	<0.0005	<0.00201	<0.0005	<0.00201	0.008	0.006
Copper	<0.0009	0.018	0.003 J	0.014	<0.0009	0.004 J	0.004 J	0.0022 J	0.013	0.004 J
Iron	0.697	7.39	1.19	6.84	1.5	0.373	0.167	0.0752	2.97	0.61
Lead	<0.0036	0.011	<0.0036	<0.0046	<0.0036	<0.0063 UJ	<0.0036	<0.0046	<0.0036	<0.0046
Selenium	<0.0066	<0.0106	<0.0066 UJ	0.018 J	0.219	0.192	0.104	0.0859	0.312	0.301
Zinc	0.021	0.043	0.015	0.098	0.039	<0.0808 UJ	0.035	<0.0591 UJ	0.02	0.007
Water Quality Parameters (mg/L)										
pH (SU)	7.62	7.44	7.23	7.24	7.49	6.62	6.73	7.48	7.52	7.41
Specific Conductivity (umhos/cm)	7900	7040	3470	3320	8060	8080	3290	3370	3580	3630
Total Dissolved Solids	5250	4345	2510	2600	6920	6155	2300	2310	2596	2588
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-133 2/14/2008	EP-133 9/17/2008	EP-134 2/14/2008	EP-134 9/17/2008	EP-135 2/13/2008	EP-135 9/16/2008	EP-136 2/14/2008	EP-136 9/17/2008	EP-137 2/14/2008	EP-137 9/17/2008
Total Metals (mg/L)										
Arsenic	1.3	1.88	0.787	0.789	2.48	2.32	0.072 J	0.105	0.146	0.239
Cadmium	<0.0004	<0.0011	<0.0004	<0.0011	0.005	0.002	<0.0004	<0.0011	0.043	0.017
Chromium	<0.0005	<0.00201	<0.0005	<0.00201	0.213	0.032	<0.0005	<0.00201	0.009	<0.00201
Copper	<0.0009	<0.00129	<0.0009	0.007	0.047	0.031	<0.0009	<0.00129	0.033	0.02
Iron	0.36	1.26	0.987	1.49	23.1	15.3	0.621	2.61	2.83	1.51
Lead	<0.0036	<0.0046	<0.0036	0.011	<0.0036	<0.0046	<0.0036	0.014	<0.0036	0.01
Selenium	0.481	0.314	<0.0066	<0.0106	0.198 J	0.16	<0.0066	<0.0106	0.252	0.806
Zinc	0.017	0.012	0.017	0.029	0.101	0.118	0.014	0.02	0.179	0.061
Water Quality Parameters (mg/L)										
pH (SU)	7.42	7.27	7.3	7.28	7.53	7.19	7.28	7.18	7.42	7.54
Specific Conductivity (umhos/cm)	3880	4320	5870	5860	7840	7900	4660	6050	5220	4780
Total Dissolved Solids	2810	3000	4700	4040	6090	6010	3320	4080	4060	3165
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-14 2/4/2008	EP-14 9/9/2008	EP-15 2/4/2008	EP-15 9/9/2008	EP-20 1/29/2008	EP-20 9/18/2008	EP-21 2/19/2008	EP-21 9/22/2008	EP-22 2/6/2008	EP-22 9/12/2008
Total Metals (mg/L)										
Arsenic	1.61	1.71	<0.0026	0.0152	1.03	1.07	<0.0026	0.185	25.2	38.2
Cadmium	0.002	<0.0011	0.011	0.0307	0.061	0.066	0.002	0.031	0.015	0.0224
Chromium	<0.0005	<0.00201	0.002	<0.00201	<0.0005	<0.00201	<0.0005	0.006	<0.0005	<0.00201
Copper	<0.0009	0.0042 J	0.005	0.0072	0.014	0.005	0.039	0.406	0.092	0.0723
Iron	0.118	0.196	0.358	0.724	0.029	0.034	2.16	26.3	0.822	0.273
Lead	<0.0036	<0.0046 UJ	<0.0036	<0.0046 UJ	<0.0036	<0.0046	0.014 J	0.137	0.024	0.0156 J
Selenium	0.455	0.394	0.143	0.158	0.288	0.369	<0.0066	<0.0106	1.81	2
Zinc	0.01	0.0179	0.018	0.0401	0.036	0.035	0.21	2.42	0.534	0.648
Water Quality Parameters (mg/L)										
pH (SU)	7.04	7.13	7.22	7.27	6.98	7.28	7.67	7.89	6.92	6.99
Specific Conductivity (umhos/cm)	4870	4950	4640	4340	5280	6330	2910	2310	11000	11400
Total Dissolved Solids	4100	3220 J	3240	3240 J	4230	5220	1690	1258	10800	11100
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-23 2/13/2008	EP-23 4/29/2008	EP-23 9/10/2008	EP-23 12/3/2008	EP-24 2/14/2008	EP-24 9/12/2008	EP-25 2/19/2008	EP-26 2/11/2008	EP-26 4/29/2008	EP-26 9/10/2008
Total Metals (mg/L)										
Arsenic	0.844		1.31		1.25	0.569	2.49	0.263		0.369
Cadmium	0.011		<0.0011		<0.0004	0.0017 J	0.021	0.37		0.589
Chromium	0.079		0.003 J		0.005	0.0042 J	0.004	<0.0005		<0.00201
Copper	0.069		0.0101		0.021	0.0111	0.356	<0.0009		0.0037 J
Iron	3.91		1.33		4.03	1.16	19.5	0.485		0.0803
Lead	0.019		<0.00645 UJ		<0.0036	0.00475 J	0.18	0.011		<0.0046 UJ
Selenium	<0.0066 UJ		<0.0106		<0.0066	<0.0106	0.088	1.57		2.06
Zinc	0.111		<0.0213 UJ		0.158	0.0602	0.303	1.44		2.2
Water Quality Parameters (mg/L)										
pH (SU)	7.65		7.39		7.1	7.12	6.93	7.15		7.19
Specific Conductivity (umhos/cm)	3060		4460		2770	3370	4580	5660		5890
Total Dissolved Solids	1650		2400		1820	2050	2900	4580		4400
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	0.003	0.006	0.0051 J				<0.001	<0.001	<0.000208
Ethylbenzene	<0.001	0.0018	0.0027	0.0022 J				<0.001	<0.001	<0.000347
Toluene	<0.001	<0.001	<0.000995	0.0003 J				<0.001	<0.001	0.0002
Total Xylenes	<0.001	0.0021	<0.00234	<0.000468 UJ				<0.001	<0.001	<0.000468
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics	<5		<1.09	<2.48				<5		<1.09
Gasoline Range Organics	<0.1		<0.115	<0.75				<0.1		<0.0231
Total Petroleum Hydrocarbons		<5							<5	

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-26 12/3/2008	EP-29 1/29/2008	EP-29 9/18/2008	EP-35 1/29/2008	EP-35 9/18/2008	EP-4 1/29/2008	EP-4 9/18/2008	EP-43 2/19/2008	EP-43 9/19/2008	EP-49 2/14/2008
Total Metals (mg/L)										
Arsenic		0.136	0.381	0.269	0.597	0.173	0.186	0.489	0.096	115
Cadmium		<0.0004	<0.0011	<0.0004	<0.0011	<0.0004	<0.0011	0.175	0.042 J	0.33
Chromium		0.07	11.6	<0.01 UJ	0.004 J	<0.0005	<0.00201	0.045	<0.00201	0.023
Copper		0.015	0.096	0.021	0.006	0.005	0.015	1.81	0.042 J	0.956
Iron		0.78	21.1	0.152	0.146	0.162	0.314	17.3	3.02	76.6
Lead		<0.0036	0.01	<0.0036	<0.0046	0.019	<0.0046	2.17	0.063 J	0.259
Selenium		0.451	0.229	1.42	0.903	<0.0066	<0.0106	0.244	0.017 J	0.369
Zinc		0.011	0.043	0.008	0.019	0.007	0.018	1.05	0.043 J	74.9
Water Quality Parameters (mg/L)										
pH (SU)		7.39	4.97	6.96	7.17	7.69	7.73	6.99	7.01	6.64
Specific Conductivity (umhos/cm)		4800	4320	5820	4880	3280	2290	4140	4850	8390
Total Dissolved Solids		4600	2980 J	3370	3780	2220	1310 J	2840	3780	7100
Volatile Organic Compounds (mg/L)										
Benzene	<0.000208									
Ethylbenzene	<0.000347									
Toluene	<0.000199									
Total Xylenes	<0.000468									
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics	<2.48									
Gasoline Range Organics	<0.75									
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-49 9/10/2008	EP-5 9/18/2008	EP-51 2/11/2008	EP-51 4/29/2008	EP-51 9/10/2008	EP-51 12/3/2008	EP-52 2/11/2008	EP-52 4/29/2008	EP-52 9/10/2008	EP-52 12/3/2008
Total Metals (mg/L)										
Arsenic	126	0.132	0.169		0.216		0.281		0.216	
Cadmium	0.192	0.002	0.024		0.0317		0.264		0.251	
Chromium	0.016	0.004 J	1.32		3.41		0.723		0.289	
Copper	0.933	0.123	0.094		0.0718		0.222		0.149	
Iron	91.5	3.44	4.83		4.42		4.14		3.14	
Lead	<0.154 UJ	0.031	0.026		<0.0246 UJ		0.322		<0.21 UJ	
Selenium	0.155	0.034	0.217		0.215		0.263		0.23	
Zinc	62.3	0.098	0.282		0.292		2.15		3.1	
Water Quality Parameters (mg/L)										
pH (SU)	6.61	7.65	6.96		6.79		6.8		6.38	
Specific Conductivity (umhos/cm)	8560	7820	12300		11500		11000		10700	
Total Dissolved Solids	6465	6220	8550		7880		9590		8225	
Volatile Organic Compounds (mg/L)										
Benzene			<0.001	<0.001	<0.000208	<0.000208	<0.001	<0.001	<0.000208	<0.000208 UJ
Ethylbenzene			<0.001	<0.001	<0.000347	<0.000347	<0.001	<0.001	<0.000347	<0.000347 UJ
Toluene			<0.001	<0.001	0.0002	<0.000199	<0.001	<0.001	0.0002	<0.000199 UJ
Total Xylenes			<0.001	<0.001	<0.000468	<0.000468	<0.001	<0.001	<0.000468	<0.000468 UJ
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics			<5		<1.09	<2.48	<5		<1.09	<2.48
Gasoline Range Organics			<0.1		<0.0231	<0.75	<0.1		<0.0231	<0.75
Total Petroleum Hydrocarbons				<5				<5		

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-53 2/13/2008	EP-53 4/29/2008	EP-53 9/10/2008	EP-53 12/3/2008	EP-54 2/11/2008	EP-54 4/29/2008	EP-54 9/10/2008	EP-54 12/3/2008	EP-56 2/11/2008	EP-56 4/29/2008
Total Metals (mg/L)										
Arsenic	27.4		22		13		9.93		6.82	
Cadmium	0.318		0.565		0.303		0.27		0.018	
Chromium	0.029		0.0022 J		0.015		0.0056		0.017	
Copper	0.044		0.0222		0.452		0.206		0.094	
Iron	4.27		0.802		1.58		0.871		8.78	
Lead	<0.0036		<0.0075 UJ		0.042		<0.0225 UJ		0.057	
Selenium	1.47		1.55		0.054		0.124		0.036	
Zinc	1.34		2.81		6.11		6.07		0.176	
Water Quality Parameters (mg/L)										
pH (SU)	7.12		6.89		6.98		6.77		7.82	
Specific Conductivity (umhos/cm)	6120		6020		7780		6880		1880	
Total Dissolved Solids	4645		4390		6260		5450		1360	
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.000208	<0.000208 UJ	0.0085	<0.02	0.0068	0.005 J	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.000347	<0.000347 UJ	<0.001	<0.02	<0.000347	<0.000347 UJ	<0.001	<0.001
Toluene	<0.001	<0.001	<0.000199	0.0002 J	<0.001	<0.02	0.0006	0.0005 J	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.000468	<0.000468 UJ	<0.001	<0.02	0.0005	<0.000468 UJ	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics	<5		<1.09	<2.48	<5		<1.09	<2.48	<5	
Gasoline Range Organics	<0.1		<0.0231	<0.75	<0.1		0.078	<0.75	<0.1	
Total Petroleum Hydrocarbons		<5				<5				<5

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-56 9/10/2008	EP-56 12/3/2008	EP-57 2/19/2008	EP-57 9/22/2008	EP-58 2/19/2008	EP-58 9/22/2008	EP-59 2/13/2008	EP-59 4/30/2008	EP-59 9/16/2008	EP-59 12/4/2008
Total Metals (mg/L)										
Arsenic	5.76		0.141	0.123	7.4	10.5	1.56		1.45	
Cadmium	0.0145		<0.0004	<0.0011	<0.0004	<0.0011	0.006		<0.0011	
Chromium	0.0044 J		<0.0005	<0.00201	0.022	0.006	0.006		0.011	
Copper	0.0076		<0.0009	<0.00129	0.003 J	0.002 J	0.017		0.004 J	
Iron	0.878		0.28	0.114 J	1.64	0.965 J	0.096		0.147	
Lead	<0.0046		<0.0036 UJ	<0.0046	0.094	0.072	<0.0036		<0.0046	
Selenium	0.0289		<0.0066	<0.0106	0.04	<0.0106	0.226		0.175	
Zinc	<0.0516 UJ		<0.0021	0.006	0.008	0.005	0.049		0.018	
Water Quality Parameters (mg/L)										
pH (SU)	7.77		7.19	7.32	6.63	6.71	7.56		7.44	
Specific Conductivity (umhos/cm)	2090		7090	7230	9590	9700	4410		3780	
Total Dissolved Solids	1316		5970	5630	7600	7035	3224		2646	
Volatile Organic Compounds (mg/L)										
Benzene	<0.000208	<0.000208 UJ					<0.001	<0.001	<0.000484	<0.000208 UJ
Ethylbenzene	<0.000347	<0.000347 UJ					<0.001	<0.001	<0.000403	<0.000347 UJ
Toluene	0.0002	<0.000199 UJ					<0.001	<0.001	<0.000792	<0.000199 UJ
Total Xylenes	<0.000468	<0.000468 UJ					<0.001	<0.001	<0.000413	<0.000468 UJ
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics	<1.09	<2.48					<5		<1.51	<2.48
Gasoline Range Organics	<0.0231	<0.75					<0.1		<0.0229 UJ	<0.75
Total Petroleum Hydrocarbons								<5		

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-6 1/29/2008	EP-6 9/18/2008	EP-60 2/13/2008	EP-60 4/30/2008	EP-60 9/16/2008	EP-60 12/4/2008	EP-61 2/19/2008	EP-61 9/22/2008	EP-62 2/13/2008	EP-62 4/30/2008
Total Metals (mg/L)										
Arsenic	<0.0026	0.022	<0.0026		<0.0085		<0.0026	0.01	1.23	
Cadmium	<0.0004	<0.0011	<0.0004		<0.0011		<0.0004	<0.0011	<0.0004	
Chromium	<0.0005	<0.00201	0.068		0.064		0.235	0.03	0.032	
Copper	0.036	0.002 J	0.008		0.005		0.008	0.002 J	0.016	
Iron	1.82	0.069	0.89		0.629		2.58	1.64 J	0.685	
Lead	0.111	0.013	<0.0036		0.01		0.013 J	<0.0046	<0.0036	
Selenium	<0.0066	<0.0106	0.141 J		0.121		0.31	0.222	0.263	
Zinc	0.033	0.009	0.022		0.02		0.012	0.003 J	0.023	
Water Quality Parameters (mg/L)										
pH (SU)	7.59	7.58	7.24		7.18		6.93	7.1	7.48	
Specific Conductivity (umhos/cm)	4530	4920	7260		7130		6020	5770	3430	
Total Dissolved Solids	3140	3540	6120		5375		4760	4135	2430	
Volatile Organic Compounds (mg/L)										
Benzene			<0.001	<0.001	<0.000208	<0.000208 UJ			<0.001	<0.001
Ethylbenzene			<0.001	<0.001	<0.000347	<0.000347 UJ			<0.001	<0.001
Toluene			<0.001	<0.001	<0.000199	<0.000199 UJ			<0.001	<0.001
Total Xylenes			<0.001	<0.001	<0.000468	<0.000468 UJ			<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics			<5		<1.51	<2.48			<5	
Gasoline Range Organics			<0.1		<0.0229 UJ	<0.75			<0.1	
Total Petroleum Hydrocarbons				<5						<5

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-62 9/16/2008	EP-62 12/4/2008	EP-63 2/13/2008	EP-63 4/30/2008	EP-63 9/16/2008	EP-63 12/4/2008	EP-64 2/13/2008	EP-64 4/30/2008	EP-64 9/16/2008	EP-64 12/4/2008
Total Metals (mg/L)										
Arsenic	1.12		0.061		0.02		0.07		0.052	
Cadmium	0.004		0.004		0.003		0.003		0.004	
Chromium	0.012		0.004		0.004 J		0.007		0.015	
Copper	0.027		0.024		0.006		0.012		0.02	
Iron	0.228		0.109		0.107		0.586		0.992	
Lead	<0.0046		<0.0036		0.019		<0.0036		<0.0046	
Selenium	0.406		<0.0066 UJ		<0.0106		0.285		0.319	
Zinc	0.029		0.031		0.021		0.025		0.028	
Water Quality Parameters (mg/L)										
pH (SU)	7.25		7.23		7.23		7.85		7.46	
Specific Conductivity (umhos/cm)	5960		6700		6000		6180		6740	
Total Dissolved Solids	4180		4945		3785		4830		5580	
Volatile Organic Compounds (mg/L)										
Benzene	<0.000484	<0.000208 UJ	<0.001	<0.001	<0.000484	<0.000208 UJ	<0.001	<0.001	<0.000484	<0.000208 UJ
Ethylbenzene	<0.000403	<0.000347 UJ	<0.001	<0.001	<0.000403	<0.000347 UJ	<0.001	<0.001	<0.000403	<0.000347 UJ
Toluene	<0.000792	<0.000199 UJ	<0.001	<0.001	<0.000792	<0.000199 UJ	<0.001	<0.001	<0.000792	0.0002 J
Total Xylenes	<0.000413	<0.000468 UJ	<0.001	<0.001	<0.000413	<0.000468 UJ	<0.001	<0.001	<0.000413	<0.000468 UJ
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics	<1.51	<2.48	<5		<1.51	<2.48	<5		<1.51	<2.48
Gasoline Range Organics	<0.0229 UJ	<0.75	<0.1		<0.0229 UJ	<0.75	<0.1		<0.0229 UJ	<0.75
Total Petroleum Hydrocarbons				<5				<5		

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-65 2/19/2008	EP-65 9/22/2008	EP-66 2/13/2008	EP-66 4/30/2008	EP-66 9/16/2008	EP-66 12/4/2008	EP-67 1/31/2008	EP-67 9/8/2008	EP-68 1/31/2008	EP-68 9/8/2008
Total Metals (mg/L)										
Arsenic	<0.0026	<0.0085	5.19		7.74		<0.0026	0.0149	<0.0026	<0.0085
Cadmium	<0.0004	<0.0011	<0.0004		0.003		<0.0004	0.0023	<0.0004	0.0011 J
Chromium	<0.0005	<0.00201	<0.0005		<0.00201		<0.0005	<0.00201	<0.0005	<0.00201
Copper	<0.0009	0.002 J	0.011		0.016		0.014	0.0084	0.008	0.0056
Iron	0.103	0.924 J	0.514		0.029		0.039	0.0502	0.174	0.0274
Lead	0.007 J	<0.0046	<0.0036		<0.0046		<0.0036	0.0593 J	<0.0036	0.0761 J
Selenium	0.195	0.134	0.243		0.362		0.133	0.11	0.24	0.272
Zinc	0.006	0.01	0.019		0.034		0.019	0.0316	0.011	0.019
Water Quality Parameters (mg/L)										
pH (SU)	7.26	7.31	7.47		7.11		7.21	7	7.47	7.27
Specific Conductivity (umhos/cm)	5130	4980	4680		6700		4920	4470	4910	5270
Total Dissolved Solids	3860	3395	3655		5125		3860	3820	3455	4080
Volatile Organic Compounds (mg/L)										
Benzene			<0.001	<0.001	<0.000484	<0.000208 UJ				
Ethylbenzene			<0.001	<0.001	<0.000403	<0.000347 UJ				
Toluene			<0.001	<0.001	<0.000792	<0.000199 UJ				
Total Xylenes			<0.001	<0.001	<0.000413	<0.000468 UJ				
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics			<5		<1.51	<2.48				
Gasoline Range Organics			<0.1		<0.0229 UJ	<0.75				
Total Petroleum Hydrocarbons				<5						

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-7 1/29/2008	EP-7 9/18/2008	EP-70 2/11/2008	EP-70 9/8/2008	EP-71 2/11/2008	EP-71 9/8/2008	EP-72 2/11/2008	EP-72 9/8/2008	EP-73 2/11/2008	EP-73 9/10/2008
Total Metals (mg/L)										
Arsenic	<0.0026	0.026	0.518	0.663	0.116	0.19	0.396	0.322	<0.0026	0.112
Cadmium	<0.0004	<0.0011	0.006	0.0071	<0.0004	0.0011 J	<0.0004	0.0072	<0.0004	0.0031
Chromium	<0.0005	<0.00201	<0.0005	<0.00201	<0.0005	<0.00201	<0.0005	<0.00201	<0.0005	<0.00201
Copper	0.019	0.009	<0.0009	0.0066	<0.0009	0.0044 J	0.01	0.0132	0.004 J	0.0045 J
Iron	0.33	0.37	0.042	0.0109	0.013	0.0058 J	0.053	0.0973	0.045	0.0362
Lead	<0.0036	0.02	<0.0036	0.0978 J	<0.0036	0.00515 J	0.024	0.285	<0.0036	<0.0046
Selenium	<0.0066	<0.0106	0.202	0.2	0.218	0.261	9.44	8.22	0.654	0.494
Zinc	0.013	0.009	0.099	0.115	0.009	0.018	0.043	0.0671	0.03	0.309
Water Quality Parameters (mg/L)										
pH (SU)	7.37	7.39	7.09	7.2	7.06	7.11	7.06	7.11	7.44	7.44
Specific Conductivity (umhos/cm)	6690	8200	7250	6860	7470	7190	12000	11700	4300	4060
Total Dissolved Solids	5120	6220	6070	5720	6410	6220	11500	10900	3230	3105
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-75 2/6/2008	EP-75 9/12/2008	EP-76 2/6/2008	EP-76 9/12/2008	EP-77 2/4/2008	EP-77 9/9/2008	EP-78 2/7/2008	EP-78 9/12/2008	EP-79 2/7/2008	EP-79 9/12/2008
Total Metals (mg/L)										
Arsenic	21.8	45.6	0.267	0.313	4.89	3.72	2.19	2.05	<0.0026	0.013
Cadmium	0.002	0.0045	<0.0004	0.0032	0.003	0.0046	0.002	<0.0011	0.003	<0.0011
Chromium	<0.0005	<0.00201	<0.0005	<0.00201	0.004	<0.00201	<0.0005	<0.00201	0.009	0.005
Copper	0.019	0.0209	0.009	0.0096	<0.0009	0.0038 J	0.005	0.002 J	0.008	0.003 J
Iron	0.138	0.185	0.114	0.0164	2.77	0.367	0.069	0.139	0.136	0.645
Lead	0.026	0.0158 J	<0.0036	0.0383 J	<0.0036	<0.0046 UJ	<0.0036	<0.0046 UJ	0.012	<0.0046 UJ
Selenium	3.94	5.9	0.048 J	0.179	<0.0066	0.0494	0.202	0.249	0.323	0.212
Zinc	0.042	0.08	0.054	0.115	0.01	0.0104	0.008	0.015	0.009	0.026
Water Quality Parameters (mg/L)										
pH (SU)	7.06	7.22	7.25	7.48	7.86	7.86	7.5	7.53	7.35	7.58
Specific Conductivity (umhos/cm)	16600	15800	4290	4360	1990	2280	3080	3050	8190	6060
Total Dissolved Solids	15700	15200	3140	3220	1420	1528 J	2250	2160	6280	4610
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Former ASARCO Smelter Site

Location / Sampling Date	EP-80 2/8/2008	EP-80 9/16/2008	EP-81 2/8/2008	EP-81 9/12/2008	EP-82 2/8/2008	EP-82 9/15/2008	EP-83 2/7/2008	EP-83 9/15/2008	EP-84 2/7/2008	EP-84 9/15/2008
Total Metals (mg/L)										
Arsenic	<0.0026	0.022	0.132	0.031	<0.0026	<0.0085	<0.0026	<0.0085	0.041	0.054
Cadmium	<0.0004	<0.0011	<0.0004	<0.0011	<0.0004	<0.0011	0.002	<0.0011	0.003	0.003
Chromium	<0.0005	<0.00201	0.002	<0.00201	<0.0005	<0.00201	<0.0005	<0.00201	<0.0005	<0.00201
Copper	<0.0009	<0.00129	0.008	<0.00129	0.01	0.006	0.006	0.004 J	0.013	0.017
Iron	0.374 J	0.25	0.285 J	0.201	0.173 J	0.766 J	0.058	0.22 J	0.021	0.05 J
Lead	0.03	0.018	<0.0036	<0.0046 UJ	<0.0036	<0.0046	<0.0036	<0.0046	0.018	0.018
Selenium	<0.0066	<0.0106	<0.02 UJ	0.046	<0.085 UJ	0.039	<0.0066 UJ	0.046	<0.0066 UJ	0.013 J
Zinc	0.008	0.017	0.01	0.013	0.015	0.008	0.008	0.021	0.021	0.017
Water Quality Parameters (mg/L)										
pH (SU)	7.31	7.34	7.56	7.54	7.06	7.53	7.47	7.56	7.23	7.51
Specific Conductivity (umhos/cm)	4700	4070	1030	1170	3720	1580	3770	3880	2930	1660
Total Dissolved Solids	3345	3175	685	834	2480	1040	2620	2690	2150	976
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-85 2/8/2008	EP-85 9/12/2008	EP-86 2/7/2008	EP-86 9/12/2008	EP-88 2/6/2008	EP-88 9/9/2008	EP-89 1/31/2008	EP-89 9/8/2008	EP-90 2/4/2008	EP-90 9/9/2008
Total Metals (mg/L)										
Arsenic	1.83	1.65	<0.0026	<0.0085	<0.0026	<0.0085	<0.0026	<0.0085	0.177	0.196
Cadmium	<0.0004	<0.0011	0.002	<0.0011	<0.0004	0.0151	0.003	0.0018 J	0.041	0.0679
Chromium	<0.0005	<0.00201	0.006	0.004 J	<0.0005	<0.00201	<0.0005	<0.00201	0.005	<0.00201
Copper	<0.0009	0.005	<0.0009	<0.00129	0.005	0.0033 J	0.008	0.0046 J	<0.0009	<0.00129
Iron	0.017 J	0.414	0.066	0.305	0.076	0.0672	0.084	0.0161	0.867	0.101
Lead	<0.0036	<0.0046 UJ	<0.0036	<0.0046 UJ	<0.0036	<0.0046 UJ	<0.0036	<0.0046 UJ	<0.0036	<0.0046 UJ
Selenium	0.19	0.232	<0.0066 UJ	0.023	0.071 J	0.28	<0.0066	<0.0106	0.625	0.488
Zinc	0.044	0.007	0.007	0.014	0.022	0.0288	0.019	0.0277	0.046	0.0858
Water Quality Parameters (mg/L)										
pH (SU)	7.46	7.54	7.72	7.81	7.3	7.45	7.51	7.26	7.32	7.28
Specific Conductivity (umhos/cm)	3360	2900	2600	2600	4780	5010	2960	3010	4150	4140
Total Dissolved Solids	2436	2080	1740	1670	3470	3470 J	2022	2190	2730	3000 J
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2008

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Location / Sampling Date	EP-94 2/7/2008	EP-94 9/15/2008	EP-95 2/7/2008	EP-95 9/15/2008	EP-96 2/7/2008	EP-96 9/15/2008	EP-97 2/7/2008	EP-97 9/15/2008	EP-98 2/7/2008	EP-98 9/15/2008
Total Metals (mg/L)										
Arsenic	<0.0026	<0.0085	<0.0026	<0.0085	<0.0026	<0.0085	0.125	0.155	<0.0026	0.016
Cadmium	0.002	0.002	<0.0004	<0.0011	0.002	0.003	0.01	0.014	0.003	0.002
Chromium	0.003	<0.00201	<0.0005	<0.00201	0.003	<0.00201	<0.0005	0.004 J	<0.0005	<0.00201
Copper	0.005	0.005	<0.0009	0.003 J	0.005	0.007	0.188	0.293	0.017	0.022
Iron	0.04	3.57	0.136	0.05 J	0.375	0.147 J	0.7	0.895 J	0.919	1.01 J
Lead	0.013	<0.0046	<0.0036	<0.0046	<0.0036	<0.0046	0.054	0.05	<0.0036	<0.0046
Selenium	<0.0066 UJ	<0.0106	0.022 J	<0.0106	<0.0066 UJ	0.02	<0.0066 UJ	<0.0106	0.994	0.599
Zinc	0.009	0.016	0.004 J	0.01	0.01	0.03	0.106	0.134	0.024	0.04
Water Quality Parameters (mg/L)										
pH (SU)	7.31	7.36	7.58	7.55	7.38	7.44	7.18	7.11	7.51	7.64
Specific Conductivity (umhos/cm)	4280	4310	2840	3300	4080	4250	4720	3790	9210	6840
Total Dissolved Solids	3000	3000	1970	2350	2990	3060	3580	2790	7420	5240
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Diesel Range Organics										
Gasoline Range Organics										
Total Petroleum Hydrocarbons										

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Groundwater Sampling Results (ASARCO): 2009 - 2010

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Location / Sampling Date	EP-100 3/5/2009	EP-100 8/10/2009	EP-101 3/3/2009	EP-101 8/6/2009	EP-102 3/3/2009	EP-102 8/6/2009	EP-103 3/3/2009	EP-103 8/7/2009	EP-104 3/2/2009	EP-104 8/6/2009
Total Metals (mg/L)										
Arsenic	<0.00448	<0.00448	14.2	13.8	0.293	0.169	0.04	<0.00448 UJ	0.057	0.056
Cadmium	0.015	0.012	1.39	5.31	0.15	0.75	0.106	0.019 J	<0.000303	<0.000303
Chromium	<0.000583	0.004 J	<0.000583	0.009	<0.000583	0.005	<0.000583	0.005	<0.000583	<0.000583
Copper	0.04	0.013	0.044	0.047	0.012	0.023	0.014	0.012	<0.000843	0.002 J
Iron	0.283	0.432	2.55	0.606	0.265	0.173	0.184	0.449 J	0.029	0.033
Lead	0.01	0.006	0.016	0.017	0.004 J	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326
Selenium	0.607	0.514	4.47	3.79	3.28	3.3	0.67	0.13 J	0.077	0.094
Zinc	0.156	0.103	0.696	1.01	0.848	3.73	0.115	0.037 J	<0.000465	0.012
Water Quality Parameters (mg/L)										
pH (SU)	6.96	6.79	6.97	6.94	7.26	6.97	6.99	7.75	7.51	7.26
Specific Conductivity (umhos/cm)	10300	10200	16100	14200	2410	1180	5450	4830	4130	4320
Total Dissolved Solids	8135	8370	13200	11660	1560	830	4900	4140	2500	2915
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

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Groundwater Sampling Results (ASARCO): 2009 - 2010

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Location / Sampling Date	EP-105 3/2/2009	EP-105 8/6/2009	EP-106 3/2/2009	EP-106 8/5/2009	EP-107 3/2/2009	EP-107 8/6/2009	EP-108 3/4/2009	EP-108 8/11/2009	EP-109 3/4/2009	EP-109 8/11/2009
Total Metals (mg/L)										
Arsenic	0.065	0.085	<0.00448	<0.00448	0.033	0.019	0.684	0.627	0.012	<0.00448
Cadmium	<0.000303	0.0007 J	<0.000303	<0.000303	<0.000303	<0.000303	0.003	0.001 J	0.002	0.001 J
Chromium	<0.000583	0.002 J	<0.000583	0.005	<0.000583	0.002 J	<0.000583	0.006	<0.000583	0.004 J
Copper	0.006	0.016	<0.000843	0.003 J	<0.000843	0.003 J	0.028	0.009	0.018	0.005
Iron	0.147	0.157	0.362	0.825	0.03	0.021	<0.096 UJ	0.011	<0.178 UJ	0.204
Lead	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	0.006	<0.00326	<0.00326
Selenium	0.045	0.049	0.091	0.104	0.475	0.59	0.039	0.026	0.051	0.039
Zinc	0.023	0.05	<0.000465	0.013	<0.000465	0.027	0.016	<0.014 UJ	0.013	<0.014 UJ
Water Quality Parameters (mg/L)										
pH (SU)	7.72	7.51	7.24	7.1	7.31	7.2	7.54	7.54	7.55	7.84
Specific Conductivity (umhos/cm)	3840	3810	4380	4350	5600	6130	3340	3320	3490	3600
Total Dissolved Solids	2960	2818	3660	3820 J	4500	4960	2090	2260	2380	2520
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

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Location / Sampling Date	EP-110 3/2/2009	EP-110 8/3/2009	EP-111 3/10/2009	EP-111 8/4/2009	EP-112 3/10/2009	EP-112 8/4/2009	EP-114 3/11/2009	EP-114 8/17/2009	EP-116 3/11/2009	EP-116 8/17/2009
Total Metals (mg/L)										
Arsenic	<0.00448	<0.00448	0.843	0.75	0.012	<0.00448	44.4	41.5	1.01	0.122
Cadmium	0.002	0.002	<0.000303	<0.000303	<0.000303	<0.000303	0.091	0.092	0.488	2.04
Chromium	<0.000583	<0.000583	<0.000583	<0.000583 UJ	<0.000583	<0.000583 UJ	<0.037 UJ	0.001 J	<0.035 UJ	<0.000583
Copper	<0.000843	0.013	0.005	0.012	0.003 J	<0.000843	0.115	0.029	6.61	13.1
Iron	0.029	0.076	2.19	1.77 J	0.166	0.21 J	8.43	5.89	12.7	0.955
Lead	<0.00326	<0.00326	<0.00326	0.009	<0.00326	<0.00326	0.106	0.074	1.17	0.153
Selenium	0.008 J	0.016 J	<0.00508	<0.00508	<0.00508	<0.00508	0.038	<0.00508	0.206	0.163
Zinc	<0.000465	0.02	0.016	0.022 J	<0.000465	0.005 J	13.3	17.2	1.91	19.2
Water Quality Parameters (mg/L)										
pH (SU)	7.5	7.21	7.32	7.23	7.47	7.22	6.88	6.57	7.21	6.28
Specific Conductivity (umhos/cm)	2920	3060	5550	5510	5080	5090	4560	4740	4380	3260
Total Dissolved Solids	2170	2240	4190	3990	3500	3380	4310	4540	2960	2560
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

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Groundwater Sampling Results (ASARCO): 2009 - 2010

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Former ASARCO Smelter Site

Location / Sampling Date	EP-117 3/11/2009	EP-117 8/17/2009	EP-119 3/9/2009	EP-119 8/13/2009	EP-12 3/3/2009	EP-12 8/18/2009	EP-120 3/4/2009	EP-120 8/11/2009	EP-122 3/9/2009	EP-122 8/12/2009
Total Metals (mg/L)										
Arsenic	3.54	3.98	1.49	1.45	2.36	0.264	0.236	0.244	1.64	1.52
Cadmium	0.104	0.093	0.002	<0.000303	0.051	<0.000303	0.004	<0.000303	<0.000303	<0.000303
Chromium	<0.058 UJ	0.003 J	<0.000583	<0.000583	0.085	0.013	<0.018 UJ	0.017	<0.000583	<0.000583
Copper	0.031	0.015	0.006	0.002 J	0.023	0.028	0.121	0.056	<0.000843	<0.000843
Iron	<0.263 UJ	0.241	0.07	<0.000872	3.29	1.62	9.3	4.95	0.031	0.074
Lead	0.013	0.029	<0.00326	<0.00326	0.013	0.012	0.035	0.016	<0.00326	<0.00326
Selenium	2.83	2.47	0.141	0.163	0.13	0.268	0.035	0.045	0.184	0.151
Zinc	0.148	0.111	0.026	0.007	0.52	0.004 J	0.174	<0.068 UJ	0.002 J	0.006
Water Quality Parameters (mg/L)										
pH (SU)	7.53	7.27	7.72	7.44	8.05	7.1	7.6	7.89	7.54	7.59
Specific Conductivity (umhos/cm)	4450	4440	3340	3090	3120	3070	3900	3770	3240	3470
Total Dissolved Solids	3170	3420	2480	2195	2240	2120	2435	2700	2370	2580
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

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Location / Sampling Date	EP-123 3/4/2009	EP-123 8/12/2009	EP-124 3/11/2009	EP-124 8/13/2009	EP-125 3/4/2009	EP-125 8/11/2009	EP-126 3/4/2009	EP-126 8/3/2009	EP-127 3/10/2009	EP-127 8/12/2009
Total Metals (mg/L)										
Arsenic	0.928	1.04	2.38	4.34	0.013	0.02	0.026	0.023	2.46	2.7
Cadmium	0.003	<0.000303	0.027	0.725	0.035	0.016	0.053	0.004	<0.000303	<0.000303
Chromium	<0.083 UJ	0.005	<0.05 UJ	0.125	<0.067 UJ	0.006	2.14	0.543	<0.000583	<0.000583
Copper	0.02	<0.000843	0.041	0.972	0.106	0.028	0.04	0.023	0.007	<0.000843
Iron	<0.311 UJ	<0.000872	2.33	99.2	1.73	1.55	<0.466 UJ	0.024	0.394	0.614
Lead	<0.00326	<0.00326	0.017	0.589	0.013	<0.00326	<0.00326	<0.00326	0.009	<0.00326
Selenium	0.084	0.059	<0.00508	<0.00508	0.358	0.474	0.939	0.834	0.006 J	<0.00508
Zinc	0.009	0.003 J	0.088	2.06	2.46	1.59	0.047	0.046	0.011	0.017
Water Quality Parameters (mg/L)										
pH (SU)	7.61	7.67	8.08	7.67	6.79	7.08	7.36	7.3	7.28	7.29
Specific Conductivity (umhos/cm)	3670	3700	2260	2690	7920	8160	4740	4640	5900	5960
Total Dissolved Solids	2825	2640	1456	1788	6265	7640	3785	3860	4480	4620
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

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Location / Sampling Date	EP-128 3/10/2009	EP-128 8/12/2009	EP-129 3/6/2009	EP-129 8/3/2009	EP-13 3/16/2009	EP-13 8/18/2009	EP-130 3/5/2009	EP-130 8/10/2009	EP-131 3/5/2009	EP-131 8/10/2009
Total Metals (mg/L)										
Arsenic	0.735	0.88	0.026	<0.00448	19.7	26.7	0.029	0.014	1.34	1.13
Cadmium	<0.000303	<0.000303	0.007	<0.000303	0.889	0.914	0.014	0.013	0.01	0.009
Chromium	<0.000583	<0.000583	<0.019 UJ	0.004 J	<0.000583	<0.000583	<0.000583	0.003 J	<0.000583	<0.000583
Copper	0.004 J	0.002 J	0.03	0.009	0.194	0.031	0.052	0.005	0.016	0.003 J
Iron	2.01	2.7	13.8	0.867	4.74	0.719 J	0.434	0.099	0.024	<0.000872
Lead	<0.00326	0.015 J	<0.00326	<0.00326	0.453	0.039	<0.00326	<0.00326	<0.00326	<0.00326
Selenium	<0.00508	<0.00508	0.015 J	0.019 J	4.95	5.78	0.231	0.175	0.089	0.089
Zinc	0.016	0.013	0.21	0.014	0.197	0.018	0.055	0.049	0.037	0.033
Water Quality Parameters (mg/L)										
pH (SU)	7.66	7.59	7.46	7.28	7.3	7.18	6.74	6.6	7.46	7.3
Specific Conductivity (umhos/cm)	7980	8090	3330	3320	11000	10600	8190	8210	3460	3620
Total Dissolved Solids	5460	5620	2340	2410	9040	8950	6235	6785	2356	2470
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

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Groundwater Sampling Results (ASARCO): 2009 - 2010

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Former ASARCO Smelter Site

Location / Sampling Date	EP-132 3/9/2009	EP-132 8/12/2009	EP-133 3/10/2009	EP-133 8/12/2009	EP-134 3/10/2009	EP-134 8/12/2009	EP-135 3/9/2009	EP-135 8/12/2009	EP-136 3/10/2009	EP-136 8/12/2009
Total Metals (mg/L)										
Arsenic	1.71	1.98	1.94	2.11	0.602	0.522	1.89	2.07	0.131	0.058
Cadmium	<0.000303	<0.000303	<0.000303	<0.000303	<0.000303	0.002	0.005	0.002	<0.000303	<0.000303
Chromium	<0.000583	0.004 J	<0.000583	<0.000583	<0.000583	<0.000583	0.542	0.003 J	<0.000583	<0.000583
Copper	0.003 J	0.002 J	<0.000843	<0.000843	0.012	0.007	0.042	0.007	0.005	<0.000843
Iron	0.905	0.305	0.173	0.436	0.894	0.851	11.6	1.58	3.15	0.901
Lead	<0.00326	<0.00326	<0.00326	<0.00326	0.008	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326
Selenium	0.262	0.268	0.721	0.249	0.015 J	<0.00508	0.161	0.141	<0.00508	<0.00508
Zinc	0.012	0.01	0.007	0.014	0.015	0.018	0.111	0.024	0.01	0.014
Water Quality Parameters (mg/L)										
pH (SU)	7.83	7.58	7.46	7.71	7.37	7.33	7.56	7.38	7.36	7.25
Specific Conductivity (umhos/cm)	3540	3530	4030	4540	5610	5640	7790	7540	6110	5570
Total Dissolved Solids	2660	2720	3000	3330	4250	4440	6540	6450	4600	4180
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-137 3/10/2009	EP-137 8/12/2009	EP-14 3/3/2009	EP-14 8/6/2009	EP-15 3/3/2009	EP-15 8/7/2009	EP-20 3/12/2009	EP-20 8/5/2009	EP-21 3/16/2009	EP-21 8/13/2009
Total Metals (mg/L)										
Arsenic	0.161	0.168	2.18	2.27	0.014	<0.00448 UJ	1.02	0.89	0.128	0.058
Cadmium	0.017	0.029	<0.000303	<0.000303	0.084	0.017 J	0.033	0.05	0.013	0.024
Chromium	<0.000583	<0.000583	<0.000583	0.002 J	<0.000583	0.005	<0.021 UJ	<0.000583	<0.043 UJ	0.002 J
Copper	0.028	0.024	0.005	<0.000843	0.014	0.013	0.002 J	0.003 J	0.068	0.173
Iron	1.15	0.699	0.746	0.251	0.456	0.428 J	<0.12 UJ	0.165	11.4	3.23
Lead	0.013	0.01 J	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	0.006	0.02	0.019
Selenium	0.423	0.297	0.35	0.314	0.153	0.125 J	0.202	0.308	<0.00508	<0.00508
Zinc	0.099	0.099	0.003 J	<0.007 UJ	0.028	0.034 J	0.018	0.026	1.79	0.556
Water Quality Parameters (mg/L)										
pH (SU)	7.6	7.63	7.21	7.11	7.33	7.52	7.32	6.98	7.85	7.53
Specific Conductivity (umhos/cm)	5080	5000	4650	4860	4340	4190	3830	5610	2440	2320
Total Dissolved Solids	3920	3740	3230	3855	2820	3060	2790	5685 J	1470	1200
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-22 3/4/2009	EP-22 8/11/2009	EP-23 3/5/2009	EP-23 5/7/2009	EP-23 8/10/2009	EP-23 12/3/2009	EP-23 3/25/2010	EP-23 5/13/2010	EP-24 3/12/2009	EP-24 8/13/2009
Total Metals (mg/L)										
Arsenic	12.4	18.7	0.788		0.542				<0.00448	0.171
Cadmium	0.046	0.031	<0.000303		<0.000303				<0.000303	<0.000303
Chromium	<0.077 UJ	<0.000583	<0.000583		<0.000583				<0.048 UJ	<0.000583
Copper	0.146	0.099	0.013		0.006				0.022	0.007
Iron	<0.412 UJ	0.046	0.553		0.673				1.64	1.18
Lead	0.015	0.014	<0.00326		<0.00326				<0.00326	<0.00326
Selenium	2.4	2.09	<0.00508		<0.00508				<0.00508	<0.00508
Zinc	0.713	0.684	0.02		0.014				0.009	0.011
Water Quality Parameters (mg/L)										
pH (SU)	7	7.21	7.48		7.32				7.36	7.24
Specific Conductivity (umhos/cm)	11300	11600	4440		4140				3150	3580
Total Dissolved Solids	9690	11000	2280		2250				1925	2120
Volatile Organic Compounds (mg/L)										
Benzene				0.0031 J	0.0055	<0.001	0.0049	0.0029		
Ethylbenzene				0.0016 J	0.002	<0.001	0.0013	<0.001		
Toluene				<0.000332 UJ	<0.000188	<0.001	<0.001	<0.001		
Total Xylenes				0.0012 J	<0.000163	<0.001	<0.001	<0.001		
MTBE					<0.000469					
Petroleum Hydrocarbons (mg/L)										
>C12-C28						<5	<5	<5		
C6-C12						<5	<5	<5		
Diesel Range Organics				1.48	1.04					
Gasoline Range Organics				<0.918	<0.918					

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-26 3/5/2009	EP-26 5/7/2009	EP-26 8/10/2009	EP-26 12/3/2009	EP-26 3/25/2010	EP-26 5/13/2010	EP-29 3/12/2009	EP-29 8/5/2009	EP-35 3/12/2009	EP-35 8/5/2009
Total Metals (mg/L)										
Arsenic	0.313		0.366				0.155	0.192	0.457	0.542
Cadmium	0.362		0.443				<0.000303	<0.000303	<0.000303	<0.000303
Chromium	<0.000583		0.002 J				<0.074 UJ	0.011	<0.028 UJ	0.003 J
Copper	0.024		0.005				0.002 J	0.002 J	0.003 J	0.003 J
Iron	0.128		<0.000872				<0.601 UJ	0.165	<0.178 UJ	0.035
Lead	0.011		<0.00326				<0.00326	<0.00326	<0.00326	<0.00326
Selenium	1.71		1.66				0.4	0.358	1.04	0.878
Zinc	1.75		1.84				0.005	0.006	<0.000465	0.003 J
Water Quality Parameters (mg/L)										
pH (SU)	7.17		7.11				7.85	7.59	7.2	6.86
Specific Conductivity (umhos/cm)	5620		5900				5250	4560	5770	5620
Total Dissolved Solids	4055		4660				3300	3965 J	4535	5605 J
Volatile Organic Compounds (mg/L)										
Benzene		<0.00016 UJ	<0.000149	<0.001	<0.001	<0.001				
Ethylbenzene		<0.00023 UJ	<0.000178	<0.001	<0.001	<0.001				
Toluene		<0.000332 UJ	<0.000188	<0.001	<0.001	<0.001				
Total Xylenes		0.0002 J	<0.000163	<0.001	<0.001	<0.001				
MTBE			<0.000469							
Petroleum Hydrocarbons (mg/L)										
>C12-C28				<5	<5	<5				
C6-C12				<5	<5	<5				
Diesel Range Organics		<0.702	<0.702							
Gasoline Range Organics		<0.918	<0.918							

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-4 3/11/2009	EP-4 8/17/2009	EP-43 3/12/2009	EP-43 8/18/2009	EP-49 3/5/2009	EP-49 8/3/2009	EP-5 3/11/2009	EP-5 8/4/2009	EP-51 3/5/2009	EP-51 5/7/2009
Total Metals (mg/L)										
Arsenic	0.203	0.253	0.092	0.236	137	37.3	0.141	0.125	0.187	
Cadmium	<0.000303	<0.000303	<0.000303	0.02	0.318	0.125	0.004	<0.000303	0.025	
Chromium	<0.047 UJ	<0.000583	<0.063 UJ	0.008	0.077	0.013	<0.042 UJ	<0.000583 UJ	1.69	
Copper	0.024	0.015	0.021	0.363	1.24	0.551	0.213	0.019	0.135	
Iron	<0.461 UJ	0.595	0.732	3.67	92	18.4	12.9	0.375 J	2.73	
Lead	0.013	0.013	0.009	0.266	0.178	0.059	0.063	0.017	0.02	
Selenium	<0.00508	<0.00508	<0.00508	0.151	0.198	0.207	<0.00508	<0.00508	0.249	
Zinc	0.007	0.002 J	0.004 J	0.168	63.6	34.5	0.206	0.016 J	0.275	
Water Quality Parameters (mg/L)										
pH (SU)	7.78	7.37	7.18	7.24	6.8	6.73	7.96	7.46	6.9	
Specific Conductivity (umhos/cm)	3140	3430	3690	3800	8200	7790	6770	6170	11500	
Total Dissolved Solids	1845	2160	2580	2890	6160	6140	4880	4310	7700	
Volatile Organic Compounds (mg/L)										
Benzene										<0.00016 UJ
Ethylbenzene										<0.00023 UJ
Toluene										<0.000332 UJ
Total Xylenes										<0.000143 UJ
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										<0.702
Gasoline Range Organics										<0.918

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-51 8/3/2009	EP-51 8/10/2009	EP-51 12/3/2009	EP-51 3/24/2010	EP-51 5/13/2010	EP-52 3/5/2009	EP-52 5/7/2009	EP-52 8/10/2009	EP-52 12/3/2009	EP-52 3/25/2010
Total Metals (mg/L)										
Arsenic	0.148					0.263		0.346		
Cadmium	0.024					0.252		0.155		
Chromium	1.24					0.521		0.152		
Copper	0.091					0.243		0.157		
Iron	1.99					4.6		1.34		
Lead	0.014					0.228		0.225		
Selenium	0.187					0.268		0.186		
Zinc	0.317					2.56		1.16		
Water Quality Parameters (mg/L)										
pH (SU)	6.82					6.54		6.57		
Specific Conductivity (umhos/cm)	13900					10600		8170		
Total Dissolved Solids	10800					8320		6945		
Volatile Organic Compounds (mg/L)										
Benzene		<0.000149	<0.001	<0.001	<0.001		<0.00016 UJ	<0.000149	<0.001	<0.001
Ethylbenzene		<0.000178	<0.001	<0.001	<0.001		<0.00023 UJ	<0.000178	<0.001	<0.001
Toluene		<0.000188	<0.001	<0.001	<0.001		<0.000332 UJ	<0.000188	<0.001	<0.001
Total Xylenes		<0.000163	<0.001	<0.001	<0.001		0.0002 J	<0.000163	<0.001	<0.001
MTBE		<0.000469						<0.000469		
Petroleum Hydrocarbons (mg/L)										
>C12-C28			<5	<5	<5				<5	<5
C6-C12			<5	<5	<5				<5	<5
Diesel Range Organics		<0.702					<0.702	<0.702		
Gasoline Range Organics		0.946					<0.918	<0.918		

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-52 5/13/2010	EP-53 3/5/2009	EP-53 5/7/2009	EP-53 8/10/2009	EP-53 12/3/2009	EP-53 3/25/2010	EP-53 5/13/2010	EP-54 3/5/2009	EP-54 5/7/2009	EP-54 8/10/2009
Total Metals (mg/L)										
Arsenic		12.5		<0.00448				8.24		6.68
Cadmium		0.461		0.381				0.256		0.214
Chromium		<0.000583		0.016				0.003 J		0.003 J
Copper		0.042		0.025				0.278		0.2
Iron		0.589		1.38				0.693		0.21
Lead		<0.00326		<0.00326				0.017		0.019
Selenium		1.52		2.57				0.079		0.043
Zinc		1.97		1.67				5.32		4.11
Water Quality Parameters (mg/L)										
pH (SU)		6.99		6.99				7.08		6.89
Specific Conductivity (umhos/cm)		7640		5860				5700		8460
Total Dissolved Solids		5750		4415				4045		6770
Volatile Organic Compounds (mg/L)										
Benzene	<0.001		<0.00016 UJ	<0.000149	<0.001	<0.001	<0.001		0.0013 J	<0.000149
Ethylbenzene	<0.001		<0.00023 UJ	<0.000178	<0.001	<0.001	<0.001		0.0003 J	<0.000178
Toluene	<0.001		<0.000332 UJ	<0.000188	<0.001	<0.001	<0.001		0.0005 J	<0.000188
Total Xylenes	<0.001		0.0006 J	<0.000163	<0.001	<0.001	<0.001		0.001 J	<0.000163
MTBE				<0.000469						<0.000469
Petroleum Hydrocarbons (mg/L)										
>C12-C28	<5				<5	<5	<5			
C6-C12	<5				<5	<5	<5			
Diesel Range Organics			<0.702	<0.702					1.07	<0.702
Gasoline Range Organics			<0.918	<0.918					<0.918	<0.918

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-54 12/3/2009	EP-54 3/24/2010	EP-54 5/13/2010	EP-56 3/5/2009	EP-56 5/7/2009	EP-56 8/10/2009	EP-56 12/3/2009	EP-56 3/24/2010	EP-56 5/13/2010	EP-57 3/16/2009
Total Metals (mg/L)										
Arsenic				4.3		3.79				0.198
Cadmium				0.014		0.013				<0.000303
Chromium				<0.000583		0.038				<0.024 UJ
Copper				0.014		0.014				0.241
Iron				2.11		4.31				4.52
Lead				<0.00326		<0.00326				0.019
Selenium				0.02		0.024				<0.00508
Zinc				0.055		0.078				0.061
Water Quality Parameters (mg/L)										
pH (SU)				7.88		7.67				7.21
Specific Conductivity (umhos/cm)				2270		2770				7100
Total Dissolved Solids				1444		1846				6070
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001	<0.001		<0.00016 UJ	<0.000149	<0.001	<0.001	<0.001	
Ethylbenzene	<0.001	<0.001	<0.001		<0.00023 UJ	<0.000178	<0.001	<0.001	<0.001	
Toluene	<0.001	<0.001	<0.001		<0.000332 UJ	<0.000188	<0.001	<0.001	<0.001	
Total Xylenes	<0.001	<0.001	<0.001		0.0002 J	<0.000163	<0.001	<0.001	<0.001	
MTBE						<0.000469				
Petroleum Hydrocarbons (mg/L)										
>C12-C28	<5	<5	<5				<5	<5	<5	
C6-C12	<5	<5	<5				<5	<5	<5	
Diesel Range Organics					<0.702	<0.702				
Gasoline Range Organics					<0.918	<0.918				

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-57 8/18/2009	EP-58 3/16/2009	EP-58 8/18/2009	EP-59 3/9/2009	EP-59 5/6/2009	EP-59 8/13/2009	EP-59 12/4/2009	EP-59 3/24/2010	EP-59 5/12/2010	EP-6 3/11/2009
Total Metals (mg/L)										
Arsenic	0.492	9.77	16.3	1.5		1.35				0.011
Cadmium	<0.000303	<0.000303	<0.000303	0.003		<0.000303				<0.000303
Chromium	<0.000583	<0.113 UJ	0.008	<0.000583		0.002 J				<0.03 UJ
Copper	0.013	0.008	0.004 J	0.007		0.001 J				0.02
Iron	0.827 J	5.42	0.898 J	0.04		0.042				<0.137 UJ
Lead	0.007	0.066	0.065	<0.00326		<0.00326				0.009
Selenium	<0.00508	<0.00508	<0.00508	0.19		0.154				<0.00508
Zinc	0.046	0.027	<0.000465	0.053		0.01				0.002 J
Water Quality Parameters (mg/L)										
pH (SU)	7.14	6.7	6.61	7.74		7.41				7.71
Specific Conductivity (umhos/cm)	7340	9240	9560	3830		3820				5010
Total Dissolved Solids	6280	7510	7440	2830		2795				3570
Volatile Organic Compounds (mg/L)										
Benzene					<0.00016 UJ	0.0003	<0.001	<0.001	<0.001	
Ethylbenzene					<0.00023 UJ	<0.000535	<0.001	<0.001	<0.001	
Toluene					<0.000332 UJ	0.0003	<0.001	<0.001	<0.001	
Total Xylenes					0.0003 J	<0.00096	<0.001	<0.001	<0.001	
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28							<5	<5	<5	
C6-C12							<5	<5	<5	
Diesel Range Organics					<0.702	<0.702				
Gasoline Range Organics					<0.918	<0.918				

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-6 8/4/2009	EP-60 3/9/2009	EP-60 5/6/2009	EP-60 8/13/2009	EP-60 12/4/2009	EP-60 3/24/2010	EP-60 5/12/2010	EP-61 3/16/2009	EP-61 8/18/2009	EP-62 3/9/2009
Total Metals (mg/L)										
Arsenic	<0.00448	<0.00448		<0.00448				<0.00448	0.021	1.44
Cadmium	<0.000303	0.002		<0.000303				<0.000303	<0.000303	0.002
Chromium	<0.000583 UJ	0.207		0.066				<0.072 UJ	0.047	0.007
Copper	<0.000843	0.014		0.003 J				<0.000843	0.009	0.007
Iron	0.036 J	1.68		0.539				1.13	0.649 J	0.288
Lead	<0.00326	<0.00326		0.012				<0.00326	0.005	<0.00326
Selenium	<0.00508	0.115		0.073				0.233	0.264	0.218
Zinc	0.004 J	0.026		0.008				<0.000465	<0.000465	0.03
Water Quality Parameters (mg/L)										
pH (SU)	7.43	7.84		7.25				7.15	7.06	7.74
Specific Conductivity (umhos/cm)	5470	7040		6620				5710	5780	3510
Total Dissolved Solids	4040	6240		5620				4710	4540	2610
Volatile Organic Compounds (mg/L)										
Benzene			<0.000149	<0.000149	<0.001	<0.001	<0.001			
Ethylbenzene			0.0002	<0.000178	<0.001	<0.001	<0.001			
Toluene			<0.000188	<0.000188	<0.001	<0.001	<0.001			
Total Xylenes			0.0006	<0.000163	<0.001	<0.001	<0.001			
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28					<5	<5	<5			
C6-C12					<5	<5	<5			
Diesel Range Organics			<0.702	<0.702						
Gasoline Range Organics			<0.918	<0.918						

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-62 5/6/2009	EP-62 8/4/2009	EP-62 8/13/2009	EP-62 12/4/2009	EP-62 3/24/2010	EP-62 5/12/2010	EP-63 3/9/2009	EP-63 5/6/2009	EP-63 8/13/2009	EP-63 12/4/2009
Total Metals (mg/L)										
Arsenic		1.54					0.024		<0.00448	
Cadmium		0.0008 J					0.002		<0.000303	
Chromium		<0.000583 UJ					<0.000583		<0.000583	
Copper		0.004 J					0.011		0.003 J	
Iron		0.02 J					0.054		0.063	
Lead		<0.00326					0.005		0.01	
Selenium		0.175					0.015 J		0.016 J	
Zinc		0.051 J					0.035		0.01	
Water Quality Parameters (mg/L)										
pH (SU)		7.44					7.56		7.24	
Specific Conductivity (umhos/cm)		3420					5560		5370	
Total Dissolved Solids		2420					3780		3770	
Volatile Organic Compounds (mg/L)										
Benzene	<0.000133		<0.000133	<0.001	<0.001	<0.001		<0.000133	<0.000149	<0.001
Ethylbenzene	<0.000535		<0.000535	<0.001	<0.001	<0.001		<0.000535	<0.000178	<0.001
Toluene	<0.000281		<0.000281	<0.001	<0.001	<0.001		<0.000281	<0.000188	<0.001
Total Xylenes	<0.00096		<0.00096	<0.001	<0.001	<0.001		<0.00096	<0.000163	<0.001
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28				<5	<5	<5				<5
C6-C12				<5	<5	<5				<5
Diesel Range Organics	<0.702		<0.702					<0.702	<0.702	
Gasoline Range Organics	<0.918		<0.918					<0.918	1.14	

Table I-2
Groundwater Sampling Results (ASARCO): 2009 - 2010

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Former ASARCO Smelter Site

Location / Sampling Date	EP-63 3/24/2010	EP-63 5/12/2010	EP-64 3/9/2009	EP-64 5/6/2009	EP-64 8/13/2009	EP-64 12/4/2009	EP-64 3/24/2010	EP-64 5/12/2010	EP-65 3/16/2009	EP-65 8/18/2009
Total Metals (mg/L)										
Arsenic			0.047		0.03				<0.00448	0.04
Cadmium			0.004		<0.000303				<0.000303	<0.000303
Chromium			0.022		0.013				<0.000583	<0.000583
Copper			0.02		0.013				<0.000843	0.007
Iron			1.43		1.16				<0.417 UJ	0.112 J
Lead			<0.00326		<0.00326				<0.00326	<0.00326
Selenium			0.361		0.212				0.126	0.138
Zinc			0.042		0.013				<0.000465	<0.000465
Water Quality Parameters (mg/L)										
pH (SU)			7.86		7.6				7.31	7.22
Specific Conductivity (umhos/cm)			7600		6070				4980	4760
Total Dissolved Solids			6560		4770				3800	3570
Volatile Organic Compounds (mg/L)										
Benzene	<0.001	<0.001		<0.000133	<0.000133	<0.001	<0.001	<0.001		
Ethylbenzene	<0.001	<0.001		<0.000535	<0.000535	<0.001	<0.001	<0.001		
Toluene	<0.001	<0.001		<0.000281	<0.000281	<0.001	<0.001	<0.001		
Total Xylenes	<0.001	<0.001		<0.00096	<0.00096	<0.001	<0.001	<0.001		
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28	<5	<5				<5	<5	<5		
C6-C12	<5	<5				<5	<5	<5		
Diesel Range Organics				<0.702	<0.702					
Gasoline Range Organics				<0.918	0.977					

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Location / Sampling Date	EP-66 3/9/2009	EP-66 5/6/2009	EP-66 8/4/2009	EP-66 8/13/2009	EP-66 12/4/2009	EP-66 3/24/2010	EP-66 5/12/2010	EP-67 3/2/2009	EP-67 8/5/2009	EP-68 3/2/2009
Total Metals (mg/L)										
Arsenic	7.84		9.27					<0.00448	<0.00448	<0.00448
Cadmium	0.002		0.004					0.001 J	<0.000303	<0.000303
Chromium	<0.000583		0.001 J					<0.000583	<0.000583	<0.000583
Copper	0.01		0.01					<0.000843	<0.000843	<0.000843
Iron	0.106		0.069 J					0.003 J	<0.000872	0.047
Lead	<0.00326		0.005					<0.00326	0.009	<0.00326
Selenium	0.322		0.291					0.084	0.081	0.22
Zinc	0.035		0.06 J					<0.000465	0.021	<0.000465
Water Quality Parameters (mg/L)										
pH (SU)	7.68		7.1					7.06	6.86	7.3
Specific Conductivity (umhos/cm)	6380		7070					4580	4410	5020
Total Dissolved Solids	5260		5960					5300	3630 J	3960
Volatile Organic Compounds (mg/L)										
Benzene		<0.00016 UJ		<0.000149	<0.001	<0.001	<0.001			
Ethylbenzene		<0.00023 UJ		<0.000178	<0.001	<0.001	<0.001			
Toluene		<0.000332 UJ		<0.000188	<0.001	<0.001	<0.001			
Total Xylenes		0.0002 J		<0.000163	<0.001	<0.001	<0.001			
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28					<5	<5	<5			
C6-C12					<5	<5	<5			
Diesel Range Organics		<0.702		<0.702						
Gasoline Range Organics		<0.918		1.2						

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Location / Sampling Date	EP-68 8/5/2009	EP-7 3/11/2009	EP-7 8/4/2009	EP-70 3/2/2009	EP-70 8/6/2009	EP-71 3/2/2009	EP-71 8/3/2009	EP-72 3/2/2009	EP-72 8/6/2009	EP-73 3/5/2009
Total Metals (mg/L)										
Arsenic	<0.00448	0.022	0.03	0.51	0.556	0.151	0.204	0.979	0.675	0.137
Cadmium	<0.000303	<0.000303	<0.000303	0.004	0.005	<0.000303	0.002	0.009	0.005	0.002
Chromium	0.003 J	<0.025 UJ	<0.000583 UJ	<0.000583	<0.000583	<0.000583	<0.000583	<0.000583	<0.000583	<0.000583
Copper	<0.000843	0.036	<0.000843	<0.000843	0.004 J	<0.000843	0.003 J	0.034	0.01	0.01
Iron	0.029	<0.227 UJ	0.427 J	0.105	<0.000872	0.004 J	0.536	0.033	0.032	0.048
Lead	<0.00326	0.011	0.013	<0.00326	<0.00326	<0.00326	<0.00326	0.013	<0.00326	<0.00326
Selenium	0.274	<0.00508	<0.00508	0.157	0.17	0.204	0.241	7.65	5.8	0.523
Zinc	0.011	0.007	0.004 J	0.066	0.091	<0.000465	0.089	0.064	0.048	0.337
Water Quality Parameters (mg/L)										
pH (SU)	7.07	7.45	7.47	7.13	7.03	7.25	7.02	7.22	7	7.47
Specific Conductivity (umhos/cm)	5340	5700	4350	6380	6490	7070	6970	14200	11500	3980
Total Dissolved Solids	4120 J	4035	3000	5500	5170	5930	5950	13300	9920	2848
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

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Location / Sampling Date	EP-73 8/10/2009	EP-75 3/10/2009	EP-75 8/7/2009	EP-76 3/10/2009	EP-76 8/7/2009	EP-77 3/3/2009	EP-77 8/7/2009	EP-78 3/4/2009	EP-78 8/11/2009	EP-79 3/4/2009
Total Metals (mg/L)										
Arsenic	<0.00448	51.6	68.9	0.209	0.215 J	3.85	2.57	2	1.94	0.014
Cadmium	0.003	<0.000303	0.009 J	<0.000303	0.007 J	0.025	0.004 J	0.003	0.001 J	0.007
Chromium	<0.000583	<0.000583	<0.000583	<0.000583	<0.000583	<0.000583	0.014	<0.000583	<0.000583	<0.074 UJ
Copper	0.004 J	0.035	0.032	0.009	0.011	0.01	0.015	0.027	0.004 J	0.027
Iron	0.393	0.715	0.068 J	<0.000872	0.014 J	0.715	1.54 J	<0.038 UJ	0.015	<0.318 UJ
Lead	<0.00326	0.018	0.015	<0.00326	0.008	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326
Selenium	0.442	7.05	6.16	0.085	0.089 J	0.094	0.058 J	0.169	0.183	0.232
Zinc	0.022	0.054	0.036 J	0.043	0.047 J	0.004 J	0.016 J	0.01	<0.012 UJ	0.024
Water Quality Parameters (mg/L)										
pH (SU)	7.23	7.39	7.54	7.72	7.6	7.78	7.78	7.61	7.54	7.48
Specific Conductivity (umhos/cm)	4150	19000	18200	4060	3820	2350	2680	3540	3620	6680
Total Dissolved Solids	3005	18600	17400	3100	2880	1510	1750	2366	2480	4550
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

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Location / Sampling Date	EP-79 8/12/2009	EP-80 3/9/2009	EP-80 8/3/2009	EP-81 3/10/2009	EP-81 8/3/2009	EP-82 3/4/2009	EP-82 8/11/2009	EP-83 3/6/2009	EP-83 8/11/2009	EP-84 3/6/2009
Total Metals (mg/L)										
Arsenic	<0.00448	0.024	0.017	0.14	0.092	0.006 J	<0.00448	<0.00448	<0.00448	0.035
Cadmium	<0.000303	<0.000303	0.013	<0.000303	<0.000303	0.005	0.0007 J	0.001 J	0.001 J	0.01
Chromium	0.005	<0.000583	0.004 J	<0.000583	0.002 J	<0.000583	<0.000583	<0.051 UJ	0.004 J	<0.000583
Copper	0.002 J	0.01	0.004 J	0.002 J	0.005	0.022	0.007	0.022	0.005	0.026
Iron	0.016	0.342	0.424	0.107	0.409	<0.041 UJ	0.072	<0.228 UJ	0.037	2.22
Lead	<0.00326	<0.00326	0.014	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	0.017
Selenium	0.153	0.034	0.014 J	0.06	0.051	0.104	0.194	0.051	0.041	0.015 J
Zinc	0.005	0.011	0.022	0.005	0.017	0.018	<0.013 UJ	0.028	<0.014 UJ	0.156
Water Quality Parameters (mg/L)										
pH (SU)	7.61	7.47	7.35	7.72	7.5	7.08	7.27	7.7	7.86	7.48
Specific Conductivity (umhos/cm)	6050	4440	4310	1080	1090	3930	2740	3900	3870	2930
Total Dissolved Solids	4620	3310	3240	642	734	2635	1950	2780	2620	2190
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

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Location / Sampling Date	EP-84 8/11/2009	EP-85 3/10/2009	EP-85 8/11/2009	EP-86 3/4/2009	EP-86 8/12/2009	EP-88 3/4/2009	EP-88 8/7/2009	EP-89 3/2/2009	EP-89 8/5/2009	EP-90 3/3/2009
Total Metals (mg/L)										
Arsenic	0.042	1.56	1.62	0.03	0.017	<0.00448	<0.00448 UJ	<0.00448	<0.00448	0.187
Cadmium	0.004	<0.000303	0.0007 J	0.002	<0.000303	0.033	0.009 J	0.001 J	<0.000303	0.023
Chromium	<0.000583	<0.000583	0.002 J	<0.08 UJ	0.006	<0.066 UJ	<0.000583	<0.000583	<0.000583	<0.000583
Copper	0.019	0.004 J	0.004 J	0.015	0.001 J	0.019	0.007	<0.000843	<0.000843	0.006
Iron	<0.000872	0.041	0.266	<0.35 UJ	0.049	<0.413 UJ	0.097 J	0.692	0.067	0.428
Lead	0.013	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326	<0.00326
Selenium	0.012 J	0.18	0.13	0.021	<0.00508	0.134	0.091 J	<0.00508	0.02	0.303
Zinc	<0.038 UJ	<0.000465	<0.009 UJ	0.012	0.004 J	0.024	0.027 J	<0.000465	0.013	0.051
Water Quality Parameters (mg/L)										
pH (SU)	7.53	7.64	7.78	7.82	7.91	7.52	8.11	7.45	7.16	7.25
Specific Conductivity (umhos/cm)	2750	3980	3250	2650	2680	4780	4530	2940	3020	4260
Total Dissolved Solids	2010	2960	2400	1660	1600	3150	3260	1530	2745 J	2680
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

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Location / Sampling Date	EP-90 8/7/2009	EP-94 3/6/2009	EP-94 8/3/2009	EP-95 3/6/2009	EP-95 8/11/2009	EP-96 3/6/2009	EP-97 3/6/2009	EP-97 8/11/2009	EP-98 3/6/2009	EP-98 8/11/2009
Total Metals (mg/L)										
Arsenic	0.172 J	0.01	<0.00448	0.014	<0.00448	0.023	0.126	0.138	0.018	0.01
Cadmium	0.049 J	0.003	<0.000303	0.001 J	<0.000303	0.004	0.013	0.011	0.002	0.002
Chromium	0.006	<0.064 UJ	<0.000583	<0.071 UJ	<0.000583	<0.06 UJ	<0.059 UJ	0.007	<0.072 UJ	0.005
Copper	0.014	0.019	0.008	0.015	0.004 J	0.019	0.191	0.258	0.033	0.014
Iron	0.844 J	<0.274 UJ	0.1	<0.319 UJ	<0.000872	<0.287 UJ	<0.792 UJ	0.506	<1.28 UJ	0.441
Lead	<0.00326	0.004 J	<0.00326	<0.00326	<0.00326	<0.00326	0.034	0.025	0.005	0.006
Selenium	0.37 J	0.015 J	0.016 J	0.016 J	0.011 J	0.018 J	<0.00508	0.01 J	0.695	0.393
Zinc	0.068 J	0.047	0.009	0.026	<0.01 UJ	0.068	0.163	<0.096 UJ	0.056	<0.023 UJ
Water Quality Parameters (mg/L)										
pH (SU)	7.83	7.58	7.33	7.89	7.88	7.65	7.55	7.8	7.8	7.83
Specific Conductivity (umhos/cm)	4320	4190	4330	2870	3130	3880	4270	4010	7590	6270
Total Dissolved Solids	3120	2940	3000	1860	2180	2820	3210	2980	5940	4600
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
MTBE										
Petroleum Hydrocarbons (mg/L)										
>C12-C28										
C6-C12										
Diesel Range Organics										
Gasoline Range Organics										

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Location / Sampling Date	EP-100 10/20/1999	EP-101 10/21/1999	EP-102 10/21/1999	EP-103 10/21/1999	EP-104 10/21/1999	EP-105 10/21/1999	EP-106 10/21/1999	EP-107 10/21/1999	EP-108 10/26/1999	EP-109 10/26/1999	EP-110 10/29/1999
Total Metals (mg/L)											
Arsenic	0.008	7.2	0.2	0.005	0.07	0.3	<0.005	0.02	0.7 J	0.007 J	<0.005
Cadmium	0.02	0.8	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 UJ	<0.01 UJ	<0.01
Copper	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.3	2.6	<0.1	0.2	0.4	0.9	3.1	0.2	2.3 J	0.9 J	1.3 J
Lead	0.007	0.02	0.004	<0.003	0.006	0.01	0.004	<0.003	0.004 J	<0.003 UJ	0.01
Selenium	0.4	2.3	5	0.2	0.1	0.07	0.09	0.5	0.04 J	0.06 J	0.02
Zinc	0.1	0.2	0.09	0.03	<0.02	0.06	0.05	0.03	0.06	0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic											
Cadmium											
Calcium	548	132	128	81	139	196	232	436	59	115	158
Chromium											
Copper											
Iron											
Lead											
Magnesium	286	40	28	24	76	80	99	211	40	68	65
Potassium	42	66	107	8.2	28	28	19	26	15	32	19
Selenium											
Sodium	1116	1387	360	211	782	692	595	733	507	563	334
Zinc											
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	344	483	366	223	407	344	309	195	359 J	361 J	281
Chloride	1601	670	197	181	503	479	355	1085	244	337	327
Fluoride	1.3	1.8	1.6	0.6	2.1	2.2	1.2	0.9	2.5	2.2	0.7
Nitrate + Nitrite	142	64	10	3.4	10	4.5	6.6	90	4.2	5.2	7.1
pH	8	7.7	7.8	8	7.8	8	7.7	7.8	8.3	8.3	8.4
Specific Conductivity	8830	7220	2760	1590	4600	4460	4180	6450	2810	3470	2780
Sulfate	2588	2856	949	397	1671	1896	1893	1912	686	1006	805
Total Dissolved Solids	6895	5334	1936	1057	2449	3410	3328	4821	1835	2269	1790 J
Total Suspended Solids	162	4245	21	46	154	216	130	22	29 J	64 J	149 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location Sampling Date	EP-111 10/28/1999	EP-112 10/28/1999	EP-113 10/28/1999	EP-114 11/18/1999	EP-115 11/22/1999	EP-116 11/18/1999	EP-117 11/18/1999	EP-118 11/18/1999	EP-12 8/11/1999	EP-12 10/29/1999	EP-13 8/3/1999
Total Metals (mg/L)											
Arsenic	1	0.01	0.005	118	0.3	2.3	6	0.2	2	3.3	38
Cadmium	<0.005	<0.005	<0.005	0.1	1.1	1.2	0.2	0.009	<0.005	<0.005	0.7
Chromium	<0.01	<0.01	<0.01	0.02	<0.01	0.03	<0.01	0.05	0.01	0.02	<0.01
Copper	0.04	<0.03	<0.03	0.04	0.5	3.7	0.09	0.1	<0.03	0.03	0.05
Iron	15	11	4.5 J	58	2.8	41	5.4	184	1.4 J	0.4 J	0.4
Lead	0.05	0.02	0.009	0.02	0.2	2	0.3	0.2	0.004	0.02	0.009
Selenium	0.01	0.01	<0.005	0.06	0.4	0.5	1.1	0.3	0.5	0.4	5.7
Zinc	0.1 J	0.1 J	0.05	35	0.8	6	0.2	0.5	<0.02	<0.02	0.07 J
Dissolved Metals (mg/L)											
Arsenic									1.7		39
Cadmium									<0.005		0.7
Calcium	285	137	158	547	711	406	165	179	360	138	354
Chromium									<0.01		<0.01
Copper									<0.03		0.05
Iron									0.8		<0.1
Lead									<0.003		<0.003
Magnesium	79	71	69	243	449	92	28	93	126	68	62
Potassium	66	69	42	231	126	65	60	49	15	10	77
Selenium									0.2		5.9
Sodium	836	639	613	1400	3200	800	400	600	945	809	2000
Zinc									<0.02		0.07
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	436	515	411	969	601	569	229	581	1147	1557	407
Chloride	562	562	408	937	3600	534	187	341	425	375	770
Fluoride	2.4	1.5	2.8	13	4.6	5.4	6	1.8	0.8	0.5	1.5
Nitrate + Nitrite	<0.2	<0.1	<0.2	0.2	60	9.6	7.8	13	12	0.9 J	96
pH	7.7	7.8	8	6.7	7.7	7.3	7.8	8	7.6	8.3	7.5
Specific Conductivity	5450	5250	4060	9800	17800	6280	2580	3460	6110	4400	11200
Sulfate	1800	1570	1358	4272	4440	2515	930	1080	1900	740	4734
Total Dissolved Solids	3963	3209	2624	8176	13965	4652	1916	2405	4756	1881 J	9509
Total Suspended Solids	303	296	203	730	8.2	1529	236	5852	36	47 J	4.3 J
Volatile Organic Compounds (mg/L)											
Benzene											<0.001 UJ
Ethylbenzene											<0.001 UJ
Toluene											<0.001 UJ
Total Xylenes											<0.001 UJ
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											<5 UJ

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Location / Sampling Date	EP-13 10/28/1999	EP-14 8/3/1999	EP-14 10/28/1999	EP-15 8/3/1999	EP-15 10/28/1999	EP-20 8/2/1999	EP-20 10/26/1999	EP-21 8/10/1999	EP-21 11/3/1999	EP-23 8/4/1999	EP-23 10/30/1999
Total Metals (mg/L)											
Arsenic	31	2.1	1.4	0.01	0.02	1.1	0.8 J	0.04	0.2	9.4	11
Cadmium	0.4	<0.005	<0.005	<0.005	0.01	0.03	0.03	<0.005	0.01	<0.005	0.008
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 UJ	<0.01	<0.01	<0.01 UJ	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	0.1	0.04 J	0.2
Iron	0.5 J	0.9	0.2 J	0.7	1.2 J	0.9	1.6 J	1.3 J	8.7	0.8 J	0.9
Lead	0.01	0.008	<0.003	<0.003	0.004	<0.005	0.003 J	0.02	0.08 J	0.02 J	0.09
Selenium	4.4 J	0.2	0.2 J	0.2	0.1 J	0.4	0.3 J	0.02	0.02	0.009	0.01
Zinc	0.03	0.06 J	<0.02	0.02 J	<0.02	0.05 J	0.04	<0.08	1	0.1	0.1 J
Dissolved Metals (mg/L)											
Arsenic		2.1		0.01		1		0.02		8.8	
Cadmium		<0.005		<0.005		0.03		<0.005		<0.005	
Calcium	265	244	336	217	230	498	483	32	35	49	37
Chromium		<0.01		<0.01		<0.01		<0.01		<0.01	
Copper		<0.03		<0.03		<0.03		<0.03		<0.03	
Iron		0.6		<0.1		<0.1		0.8		0.5	
Lead		<0.003		<0.003		<0.003		<0.003		<0.003	
Magnesium	42	67	86	76	81	287	266	39	40	31	23
Potassium	63	44	55	12	13	53	48	282	294	37	32
Selenium		0.2		0.2		0.4		<0.005		<0.005	
Sodium	1797	550	688	600	671	1600	1596	805	768	618	491
Zinc		0.04		<0.02		0.04		<0.03		<0.02	
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	327 J	621	394 J	295	266 J	372	250 J	2111	1940 J	766	938
Chloride	596	358 J	405	452	509	754	686	608	586 J	257	267
Fluoride	1.4	2	1.7	0.7	0.7	2.1	2.2	6.3 J	6.8	4.2	4.6
Nitrate + Nitrite	81	31	39	32	20	143	143	0.05 J	0.1	0.1	<0.3
pH	8	7.5	8.1	7.5	8.1	7.2	7.2	8	7.9	7.8	7.9
Specific Conductivity	8960	4300	4750	4460	4400	9930	9800	5140	5240	3750	3340
Sulfate	4164	1229	1537	1233	1356	4935	4216	88	114 J	838	540
Total Dissolved Solids	6935	3349	3667	3400	3250	8709	8197	2974	2963 J	2130	1706
Total Suspended Solids	3.9	16 J	4.2	83 J	60	35 J	106 J	19	177 J	23	18 J
Volatile Organic Compounds (mg/L)											
Benzene	<0.001			<0.001 UJ		<0.001 UJ	<0.001			0.05	0.05
Ethylbenzene	<0.001			<0.001 UJ		<0.001 UJ	<0.001			0.02	0.02
Toluene	<0.001			<0.001 UJ		<0.001 UJ	<0.001			<0.001	<0.001
Total Xylenes	<0.001			<0.001 UJ		<0.001 UJ	<0.001			0.003	0.003
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5			<5 UJ		<5 UJ	<5			7.7	<5

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Groundwater Sampling Results (ASARCO): August 1999 - October 1999

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Location / Sampling Date	EP-24 8/10/1999	EP-24 11/3/1999	EP-25 8/11/1999	EP-25 11/3/1999	EP-26 8/4/1999	EP-26 10/26/1999	EP-29 8/2/1999	EP-29 10/26/1999	EP-35 8/2/1999	EP-35 10/26/1999	EP-4 8/2/1999
Total Metals (mg/L)											
Arsenic	0.01	0.007	1.1	7.8	0.3 J		0.3	0.3 J	0.8	0.7 J	0.1
Cadmium	<0.005	<0.005	<0.005	<0.005	2.5		<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01 UJ		0.01	0.03 J	0.02	0.01 J	<0.01
Copper	<0.03	0.02	<0.03	0.06	0.3 J		<0.03	0.03	<0.03	0.03	<0.03
Iron	0.2 J	1.4	8.2 J	6.7	2.2 J		7.2	14 J	1.6	2.8 J	2.2
Lead	<0.003	0.009 J	0.009	0.05 J	0.1		<0.008	0.01 J	<0.009	0.01 J	<0.02
Selenium	<0.005	<0.005	0.2	0.3	0.6		0.1	0.1 J	1.7	1.3 J	<0.005
Zinc	<0.02	0.02	0.03	0.04	5.4		0.03 J	0.03	0.03 J	0.02	0.03 J
Dissolved Metals (mg/L)											
Arsenic	0.006		0.8		0.2		0.3		0.8		0.2
Cadmium	<0.005		<0.005		3.5		<0.005		<0.005		<0.005
Calcium	213	174	584	202	176		57	76	476	441	117
Chromium	<0.01		<0.01		<0.01		<0.01		<0.01		<0.01
Copper	<0.03		<0.03		0.08		<0.03		<0.03		<0.03
Iron	<0.1		8		<0.1		<0.1		<0.1		0.9
Lead	<0.003		<0.003		0.02		<0.003		<0.003		<0.003
Magnesium	55	42	68	32	24		22	23	160	148	30
Potassium	30	28	555	290	21		18	22	19	18	16
Selenium	<0.005		0.07		0.6		0.1		2		<0.005
Sodium	894	853	706	757	204		500	597	900	1018	350
Zinc	<0.02		<0.02		7.1		<0.02		<0.02		<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	1379	1425 J	677	1080 J	56		464	364 J	610	630 J	401
Chloride	1044	1006 J	955	893 J	147		302	313	1086	475	273
Fluoride	2.4 J	2.5	1.9	1.9	0.7		3.3	3.1	1	1	1.1
Nitrate + Nitrite	0.08 J	0.1	1	0.1	14		3.3	3.8	88	67	<0.08
pH	7.8	7.7	7.1	7.3	7.4		7.8	8.2	7.1	7.8	7.8
Specific Conductivity	5680	5200	7210	6580	2000		3180	3160	6920	6770	2440
Sulfate	273	266 J	1860	1507 J	738		741	829	2620	3387	603
Total Dissolved Solids	3538	3092 J	5465	4373 J	1466		2143	2052	6040	5791	1650
Total Suspended Solids	23	73 J	378	169 J	29		1160	572 J	398 J	454 J	358 J
Volatile Organic Compounds (mg/L)											
Benzene					<0.001	<0.001					
Ethylbenzene					<0.001	<0.001					
Toluene					<0.001	<0.001					
Total Xylenes					<0.001	<0.001					
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons					<5	<5					

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Groundwater Sampling Results (ASARCO): August 1999 - October 1999

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Location / Sampling Date	EP-4 10/25/1999	EP-42 8/2/1999	EP-42 10/26/1999	EP-43 8/11/1999	EP-43 10/29/1999	EP-44 10/26/1999	EP-48 8/2/1999	EP-48 10/27/1999	EP-49 11/2/1999	EP-5 8/2/1999	EP-5 10/25/1999
Total Metals (mg/L)											
Arsenic	0.2			0.3	1	3.1			221	0.06	0.04
Cadmium	<0.005			<0.005	<0.005	<0.005			13	<0.005	<0.005
Chromium	0.01			<0.01	<0.01	<0.01 UJ			0.02	<0.01	<0.01
Copper	0.2			<0.03	0.03	0.04			1.2	<0.03	0.06
Iron	13 J			1.7 J	1.7 J	1.1 J			631 J	1.5	0.4 J
Lead	0.09			<0.003	0.02	0.03 J			0.8	<0.02	0.01
Selenium	0.005 J			0.3	0.2	0.09 J			0.1	0.005	0.2 J
Zinc	0.1			<0.02	0.03	0.1			420	0.06 J	0.04
Dissolved Metals (mg/L)											
Arsenic				0.3						0.06	
Cadmium				<0.005						<0.005	
Calcium	129			354	294	413			462	87	323
Chromium				<0.01						0.01	
Copper				<0.03						<0.03	
Iron				1.8						0.1	
Lead				<0.003						<0.003	
Magnesium	36			125	123	165			231	36	124
Potassium	20			47	36	65			265	11	25
Selenium				0.3						<0.005	
Sodium	390			1246	1206	735			1070	550	1497
Zinc				<0.02						<0.02	
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	338 J			804	683	406 J			41.5	743	532 J
Chloride	272			1601	1628	368			840	352	1337
Fluoride	1.1			2.3	1.9	3			15	2.9	2.2
Nitrate + Nitrite	0.1			6.2	<0.2 UJ	56			0.9	<0.05	0.4
pH	8.3			7.5	7.8	8			5.4	7.9	8.1
Specific Conductivity	2660			8070	8130	5740			10440	3300	8230
Sulfate	654			1790	1183	2466			4941	577	2066
Total Dissolved Solids	1767			5598	4692 J	4586			10031	2288	5867
Total Suspended Solids	257			15	30 J	848 J			329	149 J	39
Volatile Organic Compounds (mg/L)											
Benzene		<0.001 UJ	<0.001				<0.001 UJ	<0.001		<0.001 UJ	<0.001
Ethylbenzene		<0.001 UJ	<0.001				<0.001 UJ	<0.001		<0.001 UJ	<0.001
Toluene		<0.001 UJ	<0.001				<0.001 UJ	<0.001		<0.001 UJ	<0.001
Total Xylenes		<0.001 UJ	0.003 J				<0.001 UJ	0.002 J		<0.001 UJ	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons		<5 UJ	<5				<5 UJ	<5		<5 UJ	<5

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Groundwater Sampling Results (ASARCO): August 1999 - October 1999

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Location / Sampling Date	EP-51 8/4/1999	EP-51 11/2/1999	EP-52 8/5/1999	EP-52 10/29/1999	EP-53 8/4/1999	EP-53 10/26/1999	EP-54 8/4/1999	EP-54 10/29/1999	EP-55 8/10/1999	EP-55 10/29/1999	EP-56 8/4/1999
Total Metals (mg/L)											
Arsenic	0.4 J	1	1.4	1.6	42	55	45	49	29	36	2.2 J
Cadmium	0.04	0.03	0.5	0.5	0.5	1.8	0.5	0.9	0.2	0.6	<0.005
Chromium	0.1 J	3	0.2	0.1	<0.01 UJ	<0.01 UJ	0.02 J	0.01	<0.01	0.01	<0.01 UJ
Copper	0.05 J	0.3	0.4	0.5	<0.03 UJ	0.04	0.1 J	0.6	0.03	0.1	<0.03 UJ
Iron	0.3 J	4.2	2.2	2.1 J	1.7 J	7 J	2.9 J	11 J	45 J	57 J	2.9 J
Lead	0.004 J	0.04	0.4	0.8	0.004 J	0.006 J	0.007 J	0.02	0.03	0.1	0.01 J
Selenium	0.2	0.3	0.3	0.3	0.6	1.7 J	0.1	0.2	0.05	0.2	0.02
Zinc	0.4	0.5	2.7	2.2	1.1	5.5	9.4	10	27	51	0.05
Dissolved Metals (mg/L)											
Arsenic	0.4		1		44		50		25		2.8
Cadmium	0.03		0.5		0.5		0.5		<0.005		<0.005
Calcium	590	582	512	454	330	534	497	430	502	493	227
Chromium	<0.01		0.02		<0.01		<0.01		<0.01		<0.01
Copper	0.05		0.4		<0.03		0.1		<0.03		<0.03
Iron	<0.1		0.6		<0.1		0.2		35		<0.1
Lead	<0.003		0.04		<0.003		<0.003		<0.003		0.004
Magnesium	400	378	267	243	96	95	295	230	332	315	55
Potassium	39	34	21	19	76	92	330	258	119	115	28
Selenium	0.2		0.3		0.8		0.2		0.03		0.03
Sodium	1028	958	1823	1709	937	1093	1884	1441	1441	1347	928
Zinc	0.4		2.1		1.2		9.8		12		<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	228	221	683	736	315	157 J	996	1110	867	903	289
Chloride	2357	1759	1269	1308	447	472	727	769	931	890	546
Fluoride	1.8	1.9	6.3	6	5.6	6.3	11	12	16	15	2.5
Nitrate + Nitrite	192	202	130	103	31	104	8.6	5.3	0.09 J	<0.2 UJ	0.9
pH	7.2	7.3	7.2	7	7.1	6.8	7	7.4	6.9	8.1	7.5
Specific Conductivity	11040	9920	11190	11250	7190	7380	11000	10500	10470	10240	5390
Sulfate	2458	2133	4606	3893	2905	3108	4971	3713	4066	4550	2310
Total Dissolved Solids	8470	6873	9637	8587	5354	6050	9098	7671	8634	7364	3978
Total Suspended Solids	22	31	15	12 J	428	440 J	17	60 J	362	567 J	224
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001		<0.001	<0.001	<0.001	0.008	0.01		0.04	<0.001
Ethylbenzene	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	0.001		0.006	<0.001
Toluene	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
Total Xylenes	<0.001	<0.001		<0.001	<0.001	<0.001	0.002	0.001		0.002	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5	<5		<5	<5	<5	<5	<5		<5	<5

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Location / Sampling Date	EP-56 10/26/1999	EP-57 8/10/1999	EP-57 11/3/1999	EP-58 8/10/1999	EP-58 11/3/1999	EP-59 8/3/1999	EP-59 10/27/1999	EP-6 8/2/1999	EP-6 10/25/1999	EP-60 8/3/1999	EP-60 10/27/1999
Total Metals (mg/L)											
Arsenic	0.3 J	0.3	0.5	4	4.2	2.7	2.6	0.03	0.02	0.008	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.01 J	<0.01	<0.01	<0.01	0.02	0.01	0.1	<0.01	<0.01	0.05	0.3
Copper	0.05	<0.03	<0.03	<0.03	0.1	<0.03	0.06	<0.03	<0.03	<0.03	<0.03
Iron	14 J	3.1 J	6.7	2.1 J	30	0.2	2.1 J	0.1	<0.1	0.5	2 J
Lead	0.02 J	0.003	0.01 J	0.004	0.08 J	<0.003	<0.02	<0.003	<0.003	<0.003	<0.003
Selenium	0.04 J	0.006	<0.005	0.04	0.1	0.3	0.2 J	0.03	0.04 J	0.2	0.2 J
Zinc	0.05	<0.02	0.03	<0.02	0.2	<0.02	0.05	<0.02	0.02	0.03	<0.02
Dissolved Metals (mg/L)											
Arsenic		0.3		4.1		2.8		0.02		0.006	
Cadmium		<0.005		<0.005		<0.005		<0.005		<0.005	
Calcium	259	85	116	531	518	189	182	409	411	545	560
Chromium		<0.01		<0.01		<0.01		<0.01		<0.01	
Copper		<0.03		<0.03		<0.03		<0.03		<0.03	
Iron		0.3		1.7		<0.1		<0.1		0.2	
Lead		<0.003		<0.003		<0.003		<0.003		<0.003	
Magnesium	63	79	94	226	215	96	91	143	140	222	224
Potassium	25	20	21	203	192	95	92	27	27	15	15
Selenium		<0.005		0.02		0.3		0.04		0.2	
Sodium	927	391	413	1832	1678	809	779	1100	1383	1233	1160
Zinc		<0.02		<0.02		0.02		<0.02		<0.02	
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	525 J	1293	1714 J	1313	2054 J	368	390 J	360	464 J	299	316 J
Chloride	592	206	244 J	990	960 J	422	438	1013	912	1073	1003
Fluoride	2.3	0.9 J	1	5.7 J	5.2	5.2	5	1.6	1.3	1.7	1.6
Nitrate + Nitrite	0.6	0.1 J	0.1	0.06 J	0.07	12	11	6.6	3.5	68	63
pH	8.1	7.6	7.5	8	7	7.4	8.1	8.4	8	7.6	8.1
Specific Conductivity	5290	2670	3230	11590	11310	4920	4740	7760	8070	8570	8280
Sulfate	1915	168	426 J	4036	4936 J	1871	1498	2975	3357	3184	3085
Total Dissolved Solids	3862	1745	2124 J	9236	8727	3779	3474	6252	6040	7299	6884
Total Suspended Solids	2079 J	39	2811	39	3932	4.6 J	9.8	6 J	43	2.5 J	9.2
Volatile Organic Compounds (mg/L)											
Benzene	<0.001					<0.001 UJ	<0.001			<0.001 UJ	<0.001
Ethylbenzene	<0.001					<0.001 UJ	<0.001			<0.001 UJ	<0.001
Toluene	<0.001					<0.001 UJ	<0.001			<0.001 UJ	<0.001
Total Xylenes	<0.001					<0.001 UJ	<0.001			<0.001 UJ	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5					<5 UJ	<5			<5 UJ	<5

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Location / Sampling Date	EP-61 8/10/1999	EP-61 11/3/1999	EP-62 8/3/1999	EP-62 10/27/1999	EP-63 8/3/1999	EP-63 10/27/1999	EP-64 8/3/1999	EP-64 10/27/1999	EP-65 8/10/1999	EP-65 11/3/1999	EP-66 8/4/1999
Total Metals (mg/L)											
Arsenic	0.01	0.04	0.8	0.6	0.02	0.02	0.04	0.05	0.01	0.03	9.6
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01
Chromium	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 UJ
Copper	<0.03	0.09	<0.03	<0.03	<0.03	0.04	<0.03	0.03	<0.03	0.03	0.03 J
Iron	1.9 J	14	0.1	0.6 J	0.6	0.6 J	0.5	0.4 J	0.6 J	0.7	0.2 J
Lead	<0.003	0.04 J	<0.003	<0.003	0.007	<0.009	<0.003	<0.004	<0.003	0.007 J	0.004
Selenium	0.3	0.4	0.3	0.2 J	0.2	0.1 J	0.5	0.4 J	0.2	0.2	0.3
Zinc	<0.02	0.07	0.03	0.02	0.04	0.02	0.03	0.02	<0.02	<0.02	0.05
Dissolved Metals (mg/L)											
Arsenic	0.01		0.8		0.02		0.04		0.006		10
Cadmium	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
Calcium	368	397	161	146	261	244	332	409	307	283	594
Chromium	0.01		<0.01		0.01		<0.01		<0.01		<0.01
Copper	<0.03		<0.03		<0.03		<0.03		<0.03		<0.03
Iron	0.3		<0.1		<0.1		<0.1		0.3		<0.1
Lead	<0.003		<0.003		<0.003		<0.003		<0.003		<0.003
Magnesium	167	176	80	64	172	150	113	125	132	126	147
Potassium	17	20	54	38	35	32	18	21	20	19	51
Selenium	0.3		0.3		0.2		0.5		0.2		0.3
Sodium	1357	1367	690	599	1420	1265	1578	1739	1078	1080	1230
Zinc	<0.02		0.03		0.02		0.03		<0.02		0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	472	484 J	361	339 J	439	420 J	309	304 J	667	544 J	488
Chloride	780	708 J	382	359	893	879	594	703	570	473 J	564
Fluoride	1.6 J	1.8	3.2	2.9	2.1	2	1.9	1.8	1.1 J	2.1	3.7
Nitrate + Nitrite	82 J	100	5.5	4.7	7.6	4.3	77	76	36 J	25	47
pH	7.7	7.8	7.4	8.2	7.1	7.7	7.8	8.4	7.8	7.6	7.8
Specific Conductivity	8070	8180	4410	4000	8140	7680	8380	9080	6610	6400	8000
Sulfate	2802	3023 J	1519	1278	3102	2488	4129	3930	2577	2545 J	3404
Total Dissolved Solids	6549	6418	3315	2801	6267	5687	6922	7580	5163	6536	6952
Total Suspended Solids	65	1608	2.2 J	6.2	8.3 J	11	11 J	14	20	64 J	8.9
Volatile Organic Compounds (mg/L)											
Benzene			<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001			<0.001
Ethylbenzene			<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001			<0.001
Toluene			<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001			<0.001
Total Xylenes			<0.001 UJ	<0.001	<0.001 UJ	<0.003 UJ	<0.001 UJ	<0.001			<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons			<5 UJ	<5	<5 UJ	<5	<5 UJ	<5			<5

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Location / Sampling Date	EP-66 10/27/1999	EP-67 8/5/1999	EP-67 10/28/1999	EP-68 8/5/1999	EP-68 10/28/1999	EP-7 8/2/1999	EP-7 10/25/1999	EP-70 8/5/1999	EP-70 10/28/1999	EP-71 8/5/1999	EP-71 10/28/1999
Total Metals (mg/L)											
Arsenic	6.1	0.02	0.02	0.005	<0.005	0.06	0.1	0.8	0.8	0.1	0.1
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	0.009	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.8 J	0.2	<0.1	0.4	0.4	1.6	5.8 J	<0.1	<0.1	<0.1	<0.1
Lead	<0.004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Selenium	0.2 J	0.1	0.1	0.2	0.3	<0.005	<0.005 UJ	0.2	0.2	0.2	0.2
Zinc	0.03	0.02	<0.02	<0.02	<0.02	<0.02	0.03	0.1	0.1 J	0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic		0.02		0.005		0.06		0.7		0.1	
Cadmium		<0.005		<0.005		<0.005		0.009		<0.005	
Calcium	432	433	425	246	296	146	330	291	279	348	320
Chromium		<0.01		0.01		<0.01		<0.01		<0.01	
Copper		<0.03		<0.03		<0.03		<0.03		<0.03	
Iron		<0.1		<0.1		1.5		<0.1		<0.1	
Lead		<0.003		<0.003		<0.003		<0.003		<0.003	
Magnesium	97	132	130	108	125	47	103	151	143	164	150
Potassium	40	13	12	14	14	11	16	20	17	17	15
Selenium		0.1		0.3		<0.005		0.2		0.2	
Sodium	879	414	416	608	677	500	1223	930	852	856	741
Zinc		0.04		0.02		<0.02		0.2		0.03	
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	345 J	239	244	240	224	366	460 J	220	288	281	294
Chloride	420	356	400	555	848	467	1197	488	614	475	528
Fluoride	3	0.8	0.8	0.8	0.7	1.7	1.7	1.1	1.1	0.9	0.9
Nitrate + Nitrite	30	17	13	39	27	<0.1	0.1	53	39	92	64
pH	8.3	7.7	7.3	7.9	7.4	7.7	7.8	7	7.2	7.5	7.9
Specific Conductivity	5910	4330	4400	4780	5900	3790	6700	6020	6220	5850	5800
Sulfate	2631	2117	1925	1609	1885	907	1517	2600	2057	2329	2117
Total Dissolved Solids	4908	3756	3730	3666	4467	2664	4506	4798	4909	4857	4623
Total Suspended Solids	57	10	2.2	19	42	15 J	23	3.1	<1	4	1.4
Volatile Organic Compounds (mg/L)											
Benzene	<0.001					<0.001 UJ	<0.001				
Ethylbenzene	<0.001					<0.001 UJ	<0.001				
Toluene	0.001 J					<0.001 UJ	<0.001				
Total Xylenes	<0.001 UJ					<0.001 UJ	<0.001				
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5					<5 UJ	<5				

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Location / Sampling Date	EP-73 8/5/1999	EP-73 10/29/1999	EP-75 8/6/1999	EP-77 8/5/1999	EP-77 10/29/1999	EP-78 8/9/1999	EP-78 10/31/1999	EP-79 8/9/1999	EP-79 10/31/1999	EP-80 8/9/1999	EP-80 10/27/1999
Total Metals (mg/L)											
Arsenic	0.03	0.06	16	6	5.8	5.2	4.6	0.007	0.009	0.02	0.02
Cadmium	<0.005	<0.005	0.005	0.01	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.07	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.2	<0.1	0.4	0.6	7.4 J	0.3	<0.1	<0.1	<0.1	0.5	0.5 J
Lead	<0.003	0.04	0.01	0.01	0.02	0.007 J	<0.003	<0.003 UJ	<0.003	<0.003 UJ	<0.003
Selenium	1	1.1	3.6	0.02	0.02	0.6 J	0.3	0.1 J	0.1	<0.005 UJ	0.03 J
Zinc	0.02	0.05	0.09	0.04	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic	0.03		17	7.2		5.9		0.008		0.02	
Cadmium	<0.005		0.005	0.01		<0.005		<0.005		<0.005	
Calcium	262	247	380	182	190	31	51	50	46	196	242
Chromium	<0.01		<0.01	<0.01		<0.01		<0.01		<0.01	
Copper	<0.03		0.07	<0.03		<0.03		<0.03		<0.03	
Iron	<0.1		<0.1	<0.1		<0.1		<0.1		<0.1	
Lead	<0.003		0.003	0.003		<0.003		<0.003		<0.003	
Magnesium	117	111	372	42	45	18	29	62	55	94	95
Potassium	348	315	672	32	26	39	47	8.7	8	20	17
Selenium	1.1		3.8	0.03		0.7		0.1		0.006	
Sodium	1066	901	3775	823	809	447	393	974	895	961	896
Zinc	0.03		0.1	0.02		<0.02		<0.02		0.03	
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	268	296	510	230	500	331	346	437	455	510	494 J
Chloride	439	468	192	553	557	117	208	396	445	432	406
Fluoride	2.7	2.9	1.5	3.4	2.1	4.5	4.3	4.6	4.6	1.3	1.2
Nitrate + Nitrite	19	19	124	1.8	<0.6 UJ	6.7	6.3	9.5	7.5	0.07	7.4
pH	7.5	7.6	7.2	7.4	8.4	7.8	8	8	8	7.8	8.3
Specific Conductivity	6550	6520	16010	5110	5080	2520	2620	4730	4500	5240	5320
Sulfate	3032	2596	4626	2045	1565	705	750	1509	1362	1991	2117
Total Dissolved Solids	5277	4302 J	14853	3766	3006 J	1664	1604	3360	2989	3934	4080
Total Suspended Solids	6.9	2.1 J	6.7	22	879 J	12	4.3	6.3	<1	18	27
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-81 8/9/1999	EP-81 10/27/1999	EP-82 8/9/1999	EP-82 10/31/1999	EP-83 8/9/1999	EP-83 10/30/1999	EP-84 8/9/1999	EP-84 10/30/1999	EP-85 8/9/1999	EP-85 10/27/1999	EP-86 8/9/1999
Total Metals (mg/L)											
Arsenic	0.4	0.3	0.009	0.01	0.005	0.007	0.1	0.03	2.6	2.4	0.007
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.2	0.4 J	<0.1	<0.1	<0.1	1.8	0.1	<0.1	<0.1	<0.1	0.4
Lead	0.005 J	<0.003	<0.003 UJ	<0.003	<0.003 UJ	0.003	0.03 J	0.03	0.02 J	<0.004	0.004 J
Selenium	0.3 J	0.2 J	0.2 J	0.1	0.04 J	0.04	0.02 J	0.03	0.2 J	0.2 J	0.03 J
Zinc	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04 J	<0.02	<0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic	0.4		0.01		0.006		0.1		2.8		0.008
Cadmium	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
Calcium	176	180	118	72	71	83	126	198	105	82	42
Chromium	<0.01		<0.01		<0.01		<0.01		<0.01		<0.01
Copper	<0.03		<0.03		<0.03		<0.03		<0.03		<0.03
Iron	<0.1		<0.1		<0.1		<0.1		<0.1		<0.1
Lead	<0.003		<0.003		<0.003		0.008		<0.003		<0.003
Magnesium	77	93	69	43	65	63	56	95	53	39	32
Potassium	21	14	24	19	10	9.5	6.2	7.7	29	26	9.2
Selenium	0.3		0.2		0.05		0.02		0.2		0.03
Sodium	389	340	877	624	717	638	195	292	524	444	490
Zinc	0.05		0.02		0.02		0.03		0.02		<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	465	428 J	476	522	354	403	229	318	343	364 J	331
Chloride	103	135	367	392	336	443	157	393	224	172	228
Fluoride	2.1	1.4	3.2	3.2	3.1	3	0.9	0.7	3.7	3.7	2.7
Nitrate + Nitrite	7.9	8	7.8	6	8	7.1	6	7.1	6.7	6.6	5.8
pH	7.7	8.1	7.7	7.7	7.9	7.8	7.9	7.4	7.8	8.1	8.1
Specific Conductivity	2830	2750	4490	3600	3870	3900	1838	3080	3200	2700	2600
Sulfate	1011	959	1478	872	1266	1280	506	872	1119	773	652
Total Dissolved Solids	2169	2090	3217	2369	2725	2562	1288	2234	2276	1831	1716
Total Suspended Solids	6	16	7.2	<1	6.2	102 J	4.5	4 J	2.7	1.2	15
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-86 10/31/1999	EP-87 8/10/1999	EP-88 8/5/1999	EP-88 10/30/1999	EP-89 8/5/1999	EP-89 10/28/1999	EP-9 8/3/1999	EP-90 8/5/1999	EP-90 10/30/1999	EP-93 10/13/1999	EP-94 10/13/1999
Total Metals (mg/L)											
Arsenic	<0.005	0.03	0.02	0.02	0.01	0.007		0.2	0.1	0.005	0.007
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.05	<0.03	<0.03	<0.03
Iron	0.2	3 J	0.7	0.5	<0.1	<0.1		1.4	0.2	11	2.2
Lead	<0.003	0.007	0.01	<0.003	0.005	<0.003		0.02	<0.003	0.008	0.008
Selenium	0.03	<0.005	0.04	0.06	0.02	0.02 J		1	1.1	0.02	0.03
Zinc	<0.02	<0.02	0.06	0.02 J	0.03	<0.02		0.05	<0.02	0.05	0.08
Dissolved Metals (mg/L)											
Arsenic		0.03	0.02		0.009			0.2			
Cadmium		<0.005	<0.005		<0.005			<0.005			
Calcium	39	77	59	60	169	171		191	193	143	134
Chromium		<0.01	<0.01		<0.01			<0.01			
Copper		<0.03	<0.03		<0.03			<0.03			
Iron		<0.1	<0.1		<0.1			<0.1			
Lead		<0.003	<0.003		<0.003			<0.003			
Magnesium	29	26	37	38	68	66		100	101	86	117
Potassium	8.5	<5	6.7	6.7	19	18		10	9.8	19	21
Selenium		<0.005	0.04		0.02			1.1			
Sodium	452	23	1031	932	326	357		687	680	1005	928
Zinc		<0.03	0.03		0.03			0.03			
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	366	537	500	595	259	244 J		331	311	942	436
Chloride	351	15	407	493	326	351		480	532	602	655
Fluoride	2.7	0.6 J	2.2	2.2	0.8	0.7		0.6	0.5	1.9	1.3
Nitrate + Nitrite	4.9	0.8 J	1.7	2.4	9.8	7.6		38	28	11	14
pH	7.9	7.8	8.1	7.7	7.9	8.1		7.8	7.6	7.7	7.6
Specific Conductivity	2640	666	5070	5300	2850	2880		4960	4660	5100	5040
Sulfate	550	48	1865	1726	763	832		1834	1551	1252	1290
Total Dissolved Solids	1687	405	3742	3576	2030	2022		3789	3464	3728	3609
Total Suspended Solids	11	458	61	17 J	2.5	4.1		186	9.7 J	1251	94
Volatile Organic Compounds (mg/L)											
Benzene							<0.001 UJ				
Ethylbenzene							<0.001 UJ				
Toluene							<0.001 UJ				
Total Xylenes							<0.001 UJ				
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons							<5 UJ				

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Location Sampling Date	EP-95 10/26/1999	EP-96 10/13/1999	EP-97 10/18/1999	EP-98 10/18/1999	EP-99 10/18/1999
Total Metals (mg/L)					
Arsenic	0.006 J	0.005	0.2	0.02	5.4
Cadmium	<0.005	<0.005	0.02	<0.005	<0.005
Chromium	<0.01 UJ	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.2	0.04	0.04
Iron	1.2 J	12	8.3	11	13
Lead	0.003 J	0.02	0.09	0.03	0.2
Selenium	0.02 J	0.02	0.02	0.4	1
Zinc	<0.02	0.05	0.2	0.04	0.3
Dissolved Metals (mg/L)					
Arsenic					
Cadmium					
Calcium	48	257	198	162	387
Chromium					
Copper					
Iron					
Lead					
Magnesium	63	118	123	92	156
Potassium	4.9	24	15	134	75
Selenium					
Sodium	582	874	847	1290	713
Zinc					
Water Quality Parameters (mg/L)					
Bicarbonate Alkalinity	377 J	561	599	467	451
Chloride	336	573	545	571	354
Fluoride	3.4	1.1	1.5	2.7	3
Nitrate + Nitrite	7.8	15	0.4	12	68
pH	8.3	7.7	7.8	8.1	7.6
Specific Conductivity	3340	4960	4940	6370	5600
Sulfate	817	1416	1310	2293	2587
Total Dissolved Solids	2200	3692	3689	4659	4758
Total Suspended Solids	26 J	349	42	235	473
Volatile Organic Compounds (mg/L)					
Benzene					
Ethylbenzene					
Toluene					
Total Xylenes					
Petroleum Hydrocarbons (mg/L)					
Total Petroleum Hydrocarbons					

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Location / Sampling Date	EP-100 8/7/2000	EP-100 11/7/2000	EP-101 8/4/2000	EP-101 11/2/2000	EP-102 8/4/2000	EP-102 11/3/2000	EP-103 8/4/2000	EP-103 11/2/2000	EP-104 8/3/2000	EP-104 11/1/2000
Total Metals (mg/L)										
Arsenic	0.01	0.02	6.8	7.3	0.3	0.2	0.02	0.008	0.08	0.09
Cadmium	0.03	0.02	1.3	1.7	0.1	0.05	0.007	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01 UJ	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.03	<0.03	0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.9	0.8 J	2.1	1.8 J	1.2	1.1	0.3	0.3 J	0.6	1.4
Lead	0.005	<0.003	0.01	0.01	0.009	0.007	<0.003	<0.003	0.008	0.01
Selenium	0.5	0.5	3.4	3.3	3.6	2.4	0.2	0.3	0.1	0.1
Zinc	0.2	0.1	0.1	0.3	0.05	<0.06	<0.02	<0.03	0.03	<0.07
Dissolved Metals (mg/L)										
Calcium	576	654	185	178	89	93	59	62	111	114
Magnesium	293	338	56	56	16	17	18	20	65	63
Potassium	29	36	61	59	103	127	4	3.4	20	22
Sodium	1200	1445	1800	2052	280	306	200	218	788	695
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	336	342	249	289	228	317	165	162	395	403
Chloride	1499	1546	832	898	171	111	169	186	468	451
Fluoride	1.2	1	1.6	1.5	1.5	2.2	0.6	0.6	2.2	2.2
Nitrate + Nitrite	241	0.09	102	100	9.1	5.2	2.5	3.4	11	7.7
pH (SU)	7.4	7.4	7.3	7.6	7.2	7.7	8	7.8	8.1	7.8
Specific Conductivity (umhos/cm)	10160	10660	9460	9470	2530	2370	1552	1564	4410	4440
Sulfate	2879	2747	3552	3262	642	597	412	338	1386	1230
Total Dissolved Solids	7987	8418	6935	7030	1738	1556	964	1016	3038	3155
Total Suspended Solids	79	34	53	63	11	14 J	4.2	6.2	27	61
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-105 8/4/2000	EP-105 11/1/2000	EP-106 8/2/2000	EP-106 11/2/2000	EP-107 8/3/2000	EP-107 11/3/2000	EP-108 8/9/2000	EP-108 11/9/2000	EP-109 8/9/2000	EP-109 11/9/2000
Total Metals (mg/L)										
Arsenic	0.6	0.1	0.006	0.007	0.02	0.03	1.3	1.2	0.01	0.02
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.03	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.05	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.2	0.6	0.4	0.8 J	<0.1	<0.1	0.1	0.1	0.2	0.2
Lead	0.02	0.01	0.006	<0.003	<0.005	<0.003	0.005	<0.003	<0.003	<0.003
Selenium	0.04	0.02	0.1	0.1	0.4	0.4	0.05	0.05	0.06	0.06
Zinc	0.09	<0.08	<0.02	<0.04	0.02	<0.04	0.02	<0.02	0.02	<0.02
Dissolved Metals (mg/L)										
Calcium	156	127	210	219	364	340	35	44	84	83
Magnesium	57	46	96	96	171	156	28	42	63	65
Potassium	15	16 J	14	17	18	22	38	10	20	15
Sodium	500	472	650	653	784	855	326	610	587	653
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	232	134	293	298	200	189	307	411	383	394
Chloride	393	340	355	354	898	949	218	263	369	356
Fluoride	3	3.4	0.9	0.9	1	1	2.4	2.5	2.4 J	2.4
Nitrate + Nitrite	4	0.7	10	12	86	69	5.1 J	5.6 J	8.9 J	7.5 J
pH (SU)	8.3	8.1	8.1	7.6	7.9	7.8	8.3	8.1	8.1	7.8
Specific Conductivity (umhos/cm)	3720	3410	4700	4710	6190	6440	2520	3360	3930	4000
Sulfate	1382	1075	1780	1871	1752	1870	693	943	1308	1246
Total Dissolved Solids	2641	2455	3647	3683	4730	4874	1657	2331	2726	2822
Total Suspended Solids	9.6	3.6	6.8	24	<1	<1 UJ	1.3	1.4	5.9	9.4
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-110 8/2/2000	EP-110 10/31/2000	EP-111 8/14/2000	EP-111 11/10/2000	EP-112 8/14/2000	EP-112 11/10/2000	EP-113 8/14/2000	EP-113 11/10/2000	EP-114 8/14/2000	EP-114 11/10/2000
Total Metals (mg/L)										
Arsenic	0.007	0.008	1	1.1	0.02	0.03	0.005	0.02	240	250
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	1.7	2.2
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	0.06
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.6	1
Iron	<0.1	0.2 J	1.6	1.6	0.4	0.3	0.7	0.7	210	172
Lead	<0.005	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	1.1	0.5
Selenium	0.02	0.02	0.007	0.007	0.02	0.01	<0.005	<0.005	0.06	<0.01
Zinc	<0.02	<0.05 UJ	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	51	51
Dissolved Metals (mg/L)										
Calcium	135	147 J	221	212	237	193	106	109	732	706
Magnesium	57	61	64	62	119	98	47	50	285	252
Potassium	19	18	59	62	88	80	34	36	203	182
Sodium	350	414	813	898	996	893	518	583	944	876
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	288	279	354	364	695	722	393	393	1171	1318
Chloride	354	333	491	521 J	543	662	246	205 J	620	703
Fluoride	0.8	0.8	2.6 J	2.9	1.7 J	2	3.1 J	3	10 J	9.9
Nitrate + Nitrite	7.7	8.9	0.07 J	0.1 J	0.1 J	0.2 J	0.09 J	0.1 J	0.08 J	0.2 J
pH (SU)	8.1	8.1	7.8	7.5	7.6	7.8	7.8	7.7	6.6	6.7
Specific Conductivity (umhos/cm)	2900	2920	5160	5190	7290	7280	3560	3620	7730	7800
Sulfate	805	900	2041	1518	2890	2495	1221	1048	3840	3270
Total Dissolved Solids	1985	2003	3814	3889	5212	5169	2494	2603	6743	6842
Total Suspended Solids	1.4	5.2	13	8.9	5.7	2.4	1.7	4.1	3973	9284
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-115 8/14/2000	EP-115 11/10/2000	EP-116 8/14/2000	EP-116 11/10/2000	EP-117 8/14/2000	EP-117 11/10/2000	EP-118 8/14/2000	EP-118 11/10/2000	EP-12 8/16/2000	EP-12 11/14/2000
Total Metals (mg/L)										
Arsenic	0.3	0.5	3.1	1.5	5.8	6.1	0.2	3	1.8	2.1
Cadmium	0.1	0.2	0.4	0.8	0.5	0.7	<0.005	0.01	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	0.03	0.03	0.01	0.04	0.03	0.01
Copper	0.2	0.4	5.6	15	0.4	0.5	0.07	0.3	0.04	0.05
Iron	0.5	0.9	11	17	37	42	37	103	3.7	3.6
Lead	0.04	0.2	0.6	1.1	1.8	2.4	0.1	0.4	0.03	0.03
Selenium	0.3	1.7	0.2	0.2	1	0.9	0.3	0.9	0.7 J	0.4
Zinc	0.2	0.5	2.4	6.3	0.8	0.9	0.1	0.2	0.04 J	<0.04 UJ
Dissolved Metals (mg/L)										
Calcium	489	366	257	309	330	362	96	194	178	243
Magnesium	212	77	73	64	51	57	49	71	92	96
Potassium	81	47	49	40	83	88	16	35	10	12
Sodium	1263	1327	849	795	375	458	480	435	853	875
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	822	490	558	451	599	598	265	377	1427 J	1074
Chloride	762	358 J	481	373 J	353	334 J	251	129 J	537	565
Fluoride	3.3 J	4.8	4.9 J	4.2	4.5 J	4.1	1.5 J	2.5	0.8 J	1
Nitrate + Nitrite	52	92	11	13	11	12	15	19	4	5.4
pH (SU)	7.6	7.7	7.7	7.6	7.9	7.9	8.3	8.2	7.5	7.8
Specific Conductivity (umhos/cm)	9410	7520	6180	5400	3720	3660	3280	2780	5030	5760
Sulfate	4050	3191	2458	1838	1350	1260	1060	997	1156	1786
Total Dissolved Solids	7750	6445	4396	4104	2832	2864	2243	2179	3780	4446
Total Suspended Solids	8.5	42	442	423	5468	4334	1139	2384	506	302
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-13 8/4/2000	EP-13 11/2/2000	EP-14 8/4/2000	EP-14 11/2/2000	EP-15 8/3/2000	EP-15 11/2/2000	EP-20 8/2/2000	EP-20 10/30/2000	EP-21 8/16/2000	EP-21 11/14/2000
Total Metals (mg/L)										
Arsenic	17	29	1.3	1.4	0.007	0.008	0.8	0.9	0.07 J	0.04
Cadmium	0.4	0.6	<0.005	<0.005	<0.005	<0.005	0.05	0.07	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03
Iron	0.6	0.3 J	0.3	0.4 J	1.7	2.1 J	0.7	0.5 J	1.2	0.8
Lead	0.02	0.009	0.004	0.004	<0.005	0.003	<0.005	<0.003 UJ	0.004	0.005
Selenium	3.1	5.3	0.2	0.2	0.1	0.3	0.3	0.3	0.01 J	0.01
Zinc	0.03	<0.05	<0.02	<0.04	<0.02	<0.04	0.04	<0.09 UJ	0.3 J	0.2 J
Dissolved Metals (mg/L)										
Calcium	195	281	314	300	190	195	421	443 J	22 J	36
Magnesium	36	47	78	76	66	68	232	238	26	31
Potassium	39	61	44	43	11	9.2	48	46	245	195
Sodium	1300	2292	665	644	725	702	1600	1454	684	714
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	288	367	368	390	359	361	336	349	1826 J	1696
Chloride	617	630	457	413	478	373	735	471	628	727
Fluoride	1.3	1.5	1.5	1.6	0.8	0.9	1.9	1.9	6.9 J	5.5
Nitrate + Nitrite	71	91	16	16	27	38	116	100	<0.1	0.2
pH (SU)	7.5	7.7	7.8	7.5	8	7.7	7.7	7.7	8	7.8
Specific Conductivity (umhos/cm)	7580	9700	5030	5040	4650	4460	9570	9260	4920	5200
Sulfate	2878	4033	1767	1800	1546	1323	4796	3870	114	186
Total Dissolved Solids	5755	7754	3791	3979	3377	3351	8056	7826	2734	2916
Total Suspended Solids	8.3	5.4	1.7	4	110	61	42	32	41	78
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-22 8/7/2000	EP-22 11/3/2000	EP-23 8/16/2000	EP-23 11/13/2000	EP-24 8/16/2000	EP-24 11/14/2000	EP-25 8/16/2000	EP-25 11/14/2000	EP-26 8/7/2000	EP-26 11/7/2000
Total Metals (mg/L)										
Arsenic	1.5	2.6	4.7	7	0.04 J	0.01	6.5	12	0.4	0.3
Cadmium	0.01	0.009	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	0.4	0.3
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 UJ
Copper	0.04	0.03	0.3	0.2	<0.03	<0.03	0.01	<0.03	<0.03	<0.03
Iron	0.9	0.2	1.1	1.1	0.6	0.5	1	1	0.9	1.2 J
Lead	0.006	<0.003	0.08	0.04	<0.003	0.004	0.01	0.01	0.008	0.01
Selenium	0.5	1.1	0.009 J	0.01	<0.005 UJ	<0.005	0.1 J	0.2	1.1	0.9
Zinc	0.4	0.2	0.1 J	<0.07	<0.02 UJ	<0.02 UJ	0.03 J	<0.03 UJ	1.2	1
Dissolved Metals (mg/L)										
Calcium	377	441	94	84	144	138	104	96	175	196
Magnesium	167	198	52	49	74	44	26	25	51	58
Potassium	88	106	45	45	23	20	195	172	54	53
Sodium	1400	1632	627	637	978	843	855	899	700	793
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	569	609	549 J	622	1318 J	1122	1708 J	1743	305	320
Chloride	600	534	485	398	1228	1038	1053	1100	437	410
Fluoride	2.6	2.5	3.1 J	3	2.1 J	2.3	1.9 J	1.8	2	1.9
Nitrate + Nitrite	15	32	0.4	<0.1 UJ	<0.1	0.3	<0.1	0.3	28	13
pH (SU)	8.2	7.7	7.9	7.9	7.9	7.7	7.7	7.5	7.9	7.7
Specific Conductivity (umhos/cm)	8940	10850	4870	5200	5880	5300	5840	6020	4600	4640
Sulfate	3741	4130	1423	1286	538	536	202	221	1527	1466
Total Dissolved Solids	7388	7323	2867	2740	3502	3412	3441	3496	3348	3341
Total Suspended Solids	27	101 J	34	14	15	14	84	146	28	40
Volatile Organic Compounds (mg/L)										
Benzene			0.02						<0.001	
Ethylbenzene			0.01						<0.001	
Toluene			<0.001						<0.001	
Total Xylenes			<0.001						0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons			<5						<5	

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Location / Sampling Date	EP-29 8/2/2000	EP-29 10/30/2000	EP-35 8/2/2000	EP-35 10/30/2000	EP-4 8/1/2000	EP-4 10/30/2000	EP-43 8/16/2000	EP-43 11/14/2000	EP-49 8/7/2000	EP-49 11/7/2000
Total Metals (mg/L)										
Arsenic	0.3	0.3	0.6	0.7	0.1	0.1	1.4	1.1	34	33
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.09	0.04
Chromium	0.01	<0.01	0.04	0.01	<0.01	<0.01	0.05	<0.01	0.02	<0.01 UJ
Copper	<0.03	<0.03	<0.03	<0.03	0.03	0.04	0.07	<0.03	0.03	<0.03
Iron	13	4.3 J	1.9	1.1 J	3.2	2.8 J	2.1	0.4	21	25
Lead	0.009	0.007 J	0.01	0.007 J	<0.02	0.02 J	0.04	0.006	0.007	<0.003
Selenium	0.1	0.2	1.1	1.2	<0.005	<0.005	0.1 J	0.05	0.05	0.05
Zinc	0.04	<0.04 UJ	0.04	<0.05 UJ	<0.03	<0.07 UJ	0.05 J	<0.03 UJ	32	30
Dissolved Metals (mg/L)										
Calcium	66	51 J	379	361 J	104	53 J	119	107	485	398
Magnesium	19	18	130	123	29	14	28	27	131	116
Potassium	19	16	17	14	15	9.9	29	31	231	244
Sodium	600	566	900	892	337	205	571	612	1400	1528
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	445	342	601	617	310	417	1171 J	1118	956	869
Chloride	310	303	497	440	295	128	508	459	663	607
Fluoride	3.1	3.2	1	1.1	0.9	1.1	2.6 J	2.4	7.2 J	7.4
Nitrate + Nitrite	3.9	5.6	59	45	<0.1	0.09	<0.1	0.5	11	10
pH (SU)	8.3	8	7.8	7.8	8.2	8.3	7.4	7.5	7.8	7.3
Specific Conductivity (umhos/cm)	3180	3250	6540	6320	2220	1552	3790	3600	9830	9800
Sulfate	993	912	2796	2525	457	232	466	407	4132	3961
Total Dissolved Solids	2115	2100	5323	5176	1422 J	953	2448	2325	7534	7400
Total Suspended Solids	905	754	136	57	77	96	244	51	218	114
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-5 8/1/2000	EP-5 10/31/2000	EP-51 8/7/2000	EP-51 11/7/2000	EP-52 8/7/2000	EP-52 11/7/2000	EP-53 8/16/2000	EP-53 11/13/2000	EP-54 8/7/2000	EP-54 11/7/2000
Total Metals (mg/L)										
Arsenic	0.1	0.08	0.8	0.5	1.3	1.7	35	49	34	37
Cadmium	<0.005	<0.005	0.03	0.04	0.4	0.5	1.3	1.4	0.7	0.7
Chromium	<0.01	<0.01	4.3	2.1 J	0.1	0.2 J	<0.01	<0.01	0.02	0.02 J
Copper	0.05	0.06	0.2	0.2	0.5	0.6	0.04	0.03	0.6	0.5
Iron	0.5	3.1 J	5.1	8.1 J	3.1	6.4 J	6.6	6.7	14	13 J
Lead	<0.02	0.04	0.04	0.03	0.8	1.5	0.008	0.006	0.02	0.02
Selenium	0.006	0.02	0.3	0.2	0.2	0.2	2.1 J	1.2	0.1	0.1
Zinc	<0.03	<0.08 UJ	0.4	0.5	2.7	2.8	3.4	4.1	11	12
Dissolved Metals (mg/L)										
Calcium	114	106 J	551	639	440	433	402	412	398	418
Magnesium	47	42	357	434	239	244	81	89	186	198
Potassium	12	12	34	41	15	25	62	71	224	269
Sodium	800	881	1100	1296	1800	2126	1004	1170	1400	1652
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	914	1030	223	222	754	732	221 J	329	1183	1188
Chloride	581	592	2235	2879	1255	1018	501	441	711	760
Fluoride	2.4	2.7	0.9	0.9	6.1 J	6	5.9 J	6.2	9.9 J	8.8
Nitrate + Nitrite	0.2	0.8	192	173	106	95	130	82 J	14	10
pH (SU)	8	8.2	7.4	7.4	7.5	7	6.8	7.2	7.7	7.3
Specific Conductivity (umhos/cm)	4690	4410	10620	12030	11640	11640	8020	7610	10250	10110
Sulfate	973	720	2295	2130	4650	4254	3473	2872	4153	3916
Total Dissolved Solids	3171 J	2833	7689	8473	9649	9888	6717	6538	8003	7939
Total Suspended Solids	9	95	48	39	26	29	510	471	78	60
Volatile Organic Compounds (mg/L)										
Benzene			<0.001		<0.001		<0.001		0.01	
Ethylbenzene			<0.001		<0.001		<0.001		<0.001	
Toluene			<0.001		<0.001		<0.001		<0.001	
Total Xylenes			0.001		0.001		<0.001		0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons			<5		<5		<5		<5	

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Location / Sampling Date	EP-55 8/16/2000	EP-55 11/14/2000	EP-56 8/16/2000	EP-56 11/13/2000	EP-57 8/15/2000	EP-57 11/13/2000	EP-58 8/15/2000	EP-58 11/13/2000	EP-59 8/10/2000	EP-59 10/31/2000
Total Metals (mg/L)										
Arsenic	63	51	1.4	2.5	0.4 J	0.3	3.1 J	3.4	2.3	2.5
Cadmium	0.6	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	0.06	0.02	<0.01	<0.01	<0.01	<0.01	0.03	0.03
Copper	0.06	0.03	0.06	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	41	31	77	25	0.6	1.4	2.1	1.7	0.4	0.4 J
Lead	0.1	0.08	0.04	0.02	<0.003	0.003	0.006	0.003	<0.003	0.004
Selenium	0.1 J	0.1	0.04 J	0.02	<0.005	<0.005	0.02	0.03	0.2	0.3
Zinc	43	32	0.1 J	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04 UJ
Dissolved Metals (mg/L)										
Calcium	487	457	361	182	162	213	436	451	166	180 J
Magnesium	260	232	65	39	108	130	197	208	81	91
Potassium	122	111	33	22	17	18	188	200	86	89
Sodium	1162	989	801	707	570	757	1606	1773	706	915
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	908 J	903	817 J	551	1720	1391	1342	1303	422	488
Chloride	942	755	477	404	269	379	573	2509	459	449
Fluoride	14 J	14	2.6 J	2.8	0.9 J	1.1	5.3 J	4.8	5.1	4.8
Nitrate + Nitrite	<0.1	0.2	0.7	0.7 J	0.2	<0.2 UJ	0.1	<0.2 UJ	4.1 J	3.6
pH (SU)	7.1	6.8	8	7.9	7.6	7.5	7.3	7.2	7.7	8
Specific Conductivity (umhos/cm)	9300	8900	4510	4140	4180	4820	11390	11380	4960	5320
Sulfate	3887	3402	1568	1280	693	858	4978	11643	1665	1768
Total Dissolved Solids	7357	7258	3262	2937	2882	3607	8897	9180	3632	3894
Total Suspended Solids	701	638	2224	1292	17	272	126	64	7.2	7.7
Volatile Organic Compounds (mg/L)										
Benzene	0.04		<0.001						<0.001	
Ethylbenzene	0.005		<0.001						<0.001	
Toluene	0.002		<0.001						<0.001	
Total Xylenes	<0.001		<0.001						<0.002	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	14		<5						<5	

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Location / Sampling Date	EP-6 8/1/2000	EP-6 10/30/2000	EP-60 8/10/2000	EP-60 10/31/2000	EP-61 8/15/2000	EP-61 11/13/2000	EP-62 8/10/2000	EP-62 10/31/2000	EP-63 8/10/2000	EP-63 10/31/2000
Total Metals (mg/L)										
Arsenic	0.03	0.03	0.01	0.01	0.007 J	0.01	1.1	1.4	0.02	0.03
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	0.9	1	<0.01	<0.01	<0.01	<0.01	0.02	0.03
Copper	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03
Iron	<0.1	<0.1 UJ	4.8	3.9 J	0.2	<0.1	0.1	0.3 J	0.9	1 J
Lead	<0.02	<0.003 UJ	<0.006	<0.003	<0.003	0.004	<0.003	<0.003	<0.01	0.01
Selenium	0.06	0.04	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2
Zinc	<0.02	<0.05 UJ	<0.02	<0.04 UJ	<0.02	<0.02	<0.02	<0.04 UJ	0.02	<0.09 UJ
Dissolved Metals (mg/L)										
Calcium	227	112 J	505	472 J	339	369	149	155 J	224	221 J
Magnesium	76	38	192	182	149	161	57	63	137	134
Potassium	20	13	14	11	15	17	43	42	31	28
Sodium	1000	612	1064	1189	1186	1461	558	763	1102	1434
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	449	511	321	357	854	422	405	393	627	637
Chloride	593	264	914	934	762	802	357	345	852	844
Fluoride	1.9	2.6	1.7	1.7	1.5 J	1.7	3.4	3.1	2	2.2
Nitrate + Nitrite	2.5	0.5 J	52 J	55	127	108 J	2.6 J	3.7	1.1 J	0.7
pH (SU)	8.1	8.1	7.8	7.6	7.8	7.8	7.8	7.9	7.8	7.8
Specific Conductivity (umhos/cm)	6060	3730	8300	8400	8890	8660	4170	4260	7600	7490
Sulfate	2408	878	3542	3061	3101	5608	1371	1339	2832	2505
Total Dissolved Solids	4481 J	2531	6745	6772	7074	7324	3025	3030	5714	5442
Total Suspended Solids	3.2	9.3	14	19	39	2.9	1.7	3	17	23
Volatile Organic Compounds (mg/L)										
Benzene			<0.001				<0.001		<0.001	
Ethylbenzene			<0.001				<0.001		<0.001	
Toluene			<0.001				<0.001		<0.001	
Total Xylenes			<0.001				<0.001		<0.001	
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons			<5				<5		<5	

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Location / Sampling Date	EP-64 8/10/2000	EP-64 10/31/2000	EP-65 8/15/2000	EP-65 11/13/2000	EP-66 8/10/2000	EP-66 10/31/2000	EP-67 8/2/2000	EP-67 10/31/2000	EP-68 8/2/2000	EP-68 10/31/2000
Total Metals (mg/L)										
Arsenic	0.05	0.05	0.006 J	<0.005	8.5	8.1	0.01	0.01	<0.005	<0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.2	0.2 J	0.5	0.1	0.2	0.5 J	<0.1	0.2 J	0.5	0.5 J
Lead	<0.003	<0.003	0.003	<0.003	<0.006	0.005	<0.005	0.003	<0.005	<0.003
Selenium	0.5	0.5	0.2	0.2	0.3	0.3	0.09	0.1	0.2	0.2
Zinc	<0.02	<0.05 UJ	<0.02	<0.02	0.02	<0.07 UJ	<0.02	<0.06 UJ	<0.02	<0.06 UJ
Dissolved Metals (mg/L)										
Calcium	344	355 J	241	254	454	483 J	373	434 J	212	201 J
Magnesium	104	107	99	107	112	111	112	124	93	86
Potassium	19	17	16	18	49	44	12	11	12	10
Sodium	1416	1968	887	1069	1144	1332	400	440	600	581
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	268	284	720	605	475	455	248	251	270	271
Chloride	616	634	559	524	543	415	366	275	549	472
Fluoride	1.9	1.9	1.7 J	2	3.2	3.2	0.7	0.8	0.7	0.7
Nitrate + Nitrite	86 J	79	22	19 J	34 J	38	16	14	39	40
pH (SU)	8.2	8.1	8	7.6	7.9	7.8	7.9	7.7	7.9	8
Specific Conductivity (umhos/cm)	9200	9200	6220	6340	7420	7120	4300	4300	4580	4150
Sulfate	4164	3585	2539	2516	3531	3170	2067	1765	1492	1298
Total Dissolved Solids	7559	7467	4964	5050	6233	5852	3611	3614	3331	2963
Total Suspended Solids	4.1	3.6	16	5.4	2.5	25	1.6	9.1	18	18
Volatile Organic Compounds (mg/L)										
Benzene	<0.001				<0.001					
Ethylbenzene	<0.001				<0.001					
Toluene	<0.001				<0.001					
Total Xylenes	<0.001				<0.001					
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	<5				<5					

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Location / Sampling Date	EP-7 8/1/2000	EP-7 10/30/2000	EP-70 8/3/2000	EP-70 11/1/2000	EP-71 8/3/2000	EP-71 11/1/2000	EP-72 8/3/2000	EP-72 11/1/2000	EP-73 8/7/2000	EP-73 11/7/2000
Total Metals (mg/L)										
Arsenic	0.07	0.08	0.6	0.6	0.1	0.1	<0.05	0.1	0.03	0.02
Cadmium	<0.005	<0.005	0.006	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 UJ
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.3	1.3 J	<0.1	<0.1	0.1	<0.1	0.2	0.2	<0.1	0.4 J
Lead	<0.006	<0.003 UJ	<0.005	<0.003	<0.005	<0.003	<0.005	0.007	<0.003	<0.003
Selenium	<0.005	0.006	0.2	0.2	0.2	0.2	6	5.2	0.8	0.9
Zinc	<0.02	<0.05 UJ	0.1	<0.2	<0.02	<0.04	0.04	<0.07	0.03	0.03
Dissolved Metals (mg/L)										
Calcium	62	60 J	245	266	295	299	245	244	218	199
Magnesium	20	20	125	133	137	135	234	215	92	97
Potassium	6.3	6.4	17	19 J	16	16 J	16	15 J	286	303
Sodium	450	442	859	869	700	744	1227	1081	900	941
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	338	293	267	293	285	276	351	342	257	329
Chloride	287	213	576	506	450	421	464	386	435	450
Fluoride	2.3	2.2	1	1.1	0.8	0.9	1.2	1.2	3	2.7
Nitrate + Nitrite	<0.1	0.1	51	41	78	67	41	34	16	17
pH (SU)	8	8.1	7.9	7.5	8	7.6	8.1	7.6	8.5	7.8
Specific Conductivity (umhos/cm)	2610	2520	6050	5980	5780	5740	7540	6990	6220	6350
Sulfate	633	657	2406	2308	2152	2260	3559	2957	2330	2325
Total Dissolved Solids	1710 J	1613	4624	4643	4632	4566	6394	5901	4747	4736
Total Suspended Solids	5.9	4.9	3.6	2.8	1.2	1.2	3.8	4.6	1.4	8.2
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-75 8/7/2000	EP-75 11/7/2000	EP-76 8/7/2000	EP-76 11/7/2000	EP-77 8/4/2000	EP-77 11/3/2000	EP-78 8/9/2000	EP-78 11/9/2000	EP-79 8/9/2000	EP-79 11/9/2000
Total Metals (mg/L)										
Arsenic	11	9.4	1.1	1.4	6.4	6.2	3.5	3.8	0.007	0.01
Cadmium	0.005	0.009	<0.005	<0.005	0.007	0.008	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01 UJ	<0.01	<0.01 UJ	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.05	0.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.5	0.6 J	0.3	0.2 J	3.7	0.5	0.5	<0.1	0.3	0.2
Lead	0.006	0.02	0.007	0.01	0.008	0.003	0.006	0.01	<0.003	0.003
Selenium	3.4	2.7	0.2	0.2	0.02	0.02	0.5	0.2	0.1	0.09
Zinc	0.1	0.1	0.08	0.06	0.02	<0.03	0.03	<0.02	<0.02	<0.02
Dissolved Metals (mg/L)										
Calcium	339	309	162	159	106	101	51	68	44	38
Magnesium	300	276	88	74	25	26	24	33	46	45
Potassium	504	411	93	134	17	22	53	48	12	6.4
Sodium	3000	2818	800	871	700	706	376	495	813	813
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	382	454	494	484	355	367	301	366	455	426
Chloride	230	167	456	406	372	369	130	305	387	366
Fluoride	1.4	1.3	2.2	2.2	3.5	4.3	3.6 J	3.5	5 J	4.8
Nitrate + Nitrite	182	172 J	4	3.8	1	0.7	7.2 J	9.5	10 J	7.7
pH (SU)	7.2	7.5	8.1	7.9	8.1	7.8	7.7	7.9	8.3	8.5
Specific Conductivity (umhos/cm)	14850	13680	5300	5220	3940	4320	2480	3400	4350	4320
Sulfate	9407	6898	1827	1812	1271	1055	741	898	1337	1191
Total Dissolved Solids	13269	11913	3794	3829	2707	2604	1624	2254	2946	3034
Total Suspended Solids	7.4	14	2.5	6.3	226	14 J	21	4	30	12
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-80 8/10/2000	EP-80 11/9/2000	EP-81 8/9/2000	EP-81 11/9/2000	EP-82 8/9/2000	EP-82 11/9/2000	EP-83 8/9/2000	EP-83 11/8/2000	EP-84 8/9/2000	EP-84 11/8/2000
Total Metals (mg/L)										
Arsenic	0.01	0.02	0.8	0.3	0.009	0.008	0.005	0.02	0.04	0.08
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05
Iron	0.3	0.2	0.3	0.6	0.1	<0.1	<0.1	<0.1	<0.1	0.4
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.03	0.07
Selenium	<0.005	0.02	0.3	0.3	0.06	0.1	0.04	0.04	0.02	0.01
Zinc	<0.02	0.02	0.02	0.05	<0.02	<0.02	<0.02	<0.03	0.08	<0.06
Dissolved Metals (mg/L)										
Calcium	163	194	169	156	33	135	63	62	166	82
Magnesium	74	77	76	72	18	79	55	56	77	37
Potassium	21	14	30	18	17	23	9.4	8.3	6.9	4.3
Sodium	766	916	431	323	359	626	609	670	245	161
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	542	547	342	473	561	422	375	383	303	223
Chloride	484	319	235	113	109	447	362	369	283	109
Fluoride	1.3	1.4	2.6 J	2	3.8 J	2.4	3.1 J	3	0.7 J	0.9
Nitrate + Nitrite	0.4 J	3.1 J	6.1 J	10	2.5 J	8.6	9.2 J	8.7	8.3 J	4.8
pH (SU)	7.9	7.9	7.8	7.5	8.3	7.6	8.3	8	7.9	7.8
Specific Conductivity (umhos/cm)	5230	5300	3260	2800	2130	4240	3820	3850	2880	1546
Sulfate	1877	1927	1189	965	569	1210	1297	1073	941	373
Total Dissolved Solids	3789	4033	2344	2154	1453	3019	2623	2704	2124	1058
Total Suspended Solids	6.6	4.3	11	6.7	5	2.5	4.3	1.4	2.2	14
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-85 8/9/2000	EP-85 11/9/2000	EP-86 8/9/2000	EP-86 11/9/2000	EP-88 8/4/2000	EP-88 11/7/2000	EP-89 8/2/2000	EP-89 10/31/2000	EP-90 8/4/2000	EP-90 11/3/2000
Total Metals (mg/L)										
Arsenic	2.6	2.2	<0.005	0.007	0.03	0.03	<0.005	<0.005	0.1	0.1
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	0.008
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 UJ	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.4	<0.1	0.2	0.2	0.1	0.2 J	<0.1	0.2 J	1.6	1
Lead	0.006	<0.003	<0.003	<0.003		0.004	0.02	0.006	0.003	<0.003
Selenium	0.2	0.2	0.03	0.03	0.04	0.05	0.02	0.02	1.2	1.5
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.04 UJ	<0.02	<0.03
Dissolved Metals (mg/L)										
Calcium	65	73	38	35	54	56	139	148 J	219	242
Magnesium	31	35	27	26	34	35	55	57	106	116
Potassium	25	24	12	7.6	3.9	8.2	16	16	8.3	14
Sodium	387	413	425	454	1000	1029	350	414	712	832
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	403	366	301	322	609	628	278	272	343	338
Chloride	164	146	271	275	292	434	334	337	500	469
Fluoride	3.7 J	3.7	2.6 J	2.7	2.1	2.1	0.8	0.8	0.5	0.5
Nitrate + Nitrite	8.4 J	5.4 J	6.3 J	6.4 J	2.8	13	7.9	7.8	29	38
pH (SU)	8.1	8	8.6	8.5	8.1	8	8.1	8	8.1	7.6
Specific Conductivity (umhos/cm)	2620	2590	2600	2640	5290	5240	2900	2910	5030	5330
Sulfate	765	697	675	645	1633	1509	796	900	1953	1594
Total Dissolved Solids	1784	1803	1652	1745	3705	3643	1995	1984	3853	4138
Total Suspended Solids	15	3.1	8.8	8.2	3.4	6.4	2	2	133	39 J
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location / Sampling Date	EP-93 8/9/2000	EP-93 11/8/2000	EP-94 8/9/2000	EP-94 11/8/2000	EP-95 8/9/2000	EP-95 11/8/2000	EP-96 8/9/2000	EP-96 11/8/2000	EP-97 8/9/2000	EP-97 11/8/2000
Total Metals (mg/L)										
Arsenic	0.01	0.02	0.009	0.02	0.01	0.02	0.008	0.02	0.2	0.2
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	0.008
Chromium	0.02	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.2	0.3
Iron	9.3	5.2	0.1	0.2	0.1	<0.1	4.2	3.2	0.5	5.3
Lead	0.009	0.006	<0.003	0.003	<0.003	<0.003	0.007	0.005	0.02	0.2
Selenium	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.009	<0.005
Zinc	0.04	<0.04	0.03	<0.03	<0.02	<0.02	0.03	<0.03	0.1	<0.1
Dissolved Metals (mg/L)										
Calcium	116	91	100	98	35	34	140	133	108	96
Magnesium	73	67	96	98	57	58	84	86	72	60
Potassium	12	8.8	13	12	2.7	2.4	12	12	11	6.2
Sodium	850	895	725	799	481	554	681	792	663	548
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	756	712	400	390	372	386	500	605	659	510
Chloride	448	469	554	577	355	355	454	455	348	284
Fluoride	1.7 J	1.8	1.3 J	1.3	4 J	3.7	1 J	1.1	1.4 J	1.4
Nitrate + Nitrite	8.2 J	8.1	15 J	13	9.2 J	8.9	17 J	12	<0.07 UJ	<0.05
pH (SU)	8.1	7.7	8	7.9	8.3	8.1	8	7.8	8	7.9
Specific Conductivity (umhos/cm)	4840	4900	4910	4800	3220	3240	4780	4780	4040	3480
Sulfate	1118	1225	1411	1254	859	813	1388	1364	947	975
Total Dissolved Solids	3351	3449	3391	3410	2127	2192	3366	3436	2817	2458
Total Suspended Solids	337	232	1.2	3	2.8	<1	307	217	7.5	208
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

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Location Sampling Date	EP-98 8/9/2000	EP-98 11/8/2000	EP-99 8/9/2000	EP-99 11/8/2000
Total Metals (mg/L)				
Arsenic	0.02	0.03	6.5	3.7
Cadmium	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.06	0.03
Iron	0.3	0.1	2.2	0.8
Lead	0.004	<0.003	0.04	0.01
Selenium	0.5	0.3	1.1	1.2
Zinc	0.03	<0.03	0.1	<0.06
Dissolved Metals (mg/L)				
Calcium	73	71	323	392
Magnesium	67	68	112	139
Potassium	90	87	91	87
Sodium	1008	1036	676	727
Water Quality Parameters (mg/L)				
Bicarbonate Alkalinity	432	439	365	370
Chloride	684	580	358	304
Fluoride	2.5 J	2.2	3.6 J	2.4
Nitrate + Nitrite	11 J	12	80 J	75
pH (SU)	8.3	8	7.6	7.7
Specific Conductivity (umhos/cm)	6460	5880	5830	5460
Sulfate	2168	1841	2274	2093
Total Dissolved Solids	4548	4212	4783	4541
Total Suspended Solids	14	6.1	18	43
Volatile Organic Compounds (mg/L)				
Benzene				
Ethylbenzene				
Toluene				
Total Xylenes				
Petroleum Hydrocarbons (mg/L)				
Total Petroleum Hydrocarbons				

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Groundwater Sampling Results (ASARCO): August 2002 - November 2002

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Location / Sampling Date	EP-100 8/12/2002	EP-101 8/7/2002	EP-101 11/5/2002	EP-102 8/7/2002	EP-103 8/7/2002	EP-104 8/8/2002	EP-104 11/5/2002	EP-105 8/8/2002	EP-105 11/25/2002	EP-106 8/8/2002	EP-107 8/20/2002
Total Metals (mg/L)											
Arsenic	0.04	5.5	5.4	0.4	0.02	0.09	0.09	0.2	0.2	0.01	0.03
Cadmium	0.02	1.7	1.8	0.1	0.01	<0.005	0.03	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.03	0.05	0.04	<0.03	<0.03	<0.03	0.03	0.06	0.2	<0.03	<0.03
Iron	0.5	1	1.2	0.5	<0.1	0.1	0.2	1.5	13	0.5	<0.1
Lead	0.007	0.009	0.008	0.004	<0.003	<0.003	<0.003	0.02	0.2	<0.003	<0.003
Selenium	0.5	1.4	1.1	7.5	0.3	0.09	0.09	0.04	0.03	0.1	0.5
Zinc	0.2	0.4	0.4	0.05	0.03	0.02	0.04	0.1	0.5	0.03	0.03
Dissolved Metals (mg/L)											
Arsenic	0.04	5.1	5.5	0.4	0.02	0.08	0.09	0.2	0.2	0.01	0.03
Cadmium	0.02	1.5	1.9	0.09	0.01	<0.005	0.04	<0.005	<0.005	<0.005	<0.005
Calcium	596	149	149	169	127	119	115	171	178	245	378
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	314	52	55	39	40	74	73	72	76	108	177
Potassium	29	42	50	98	7.4	19	25	15	25	13	15
Selenium	0.5	1.3	1.1	6.8	0.3	0.09	0.09	0.03	0.03	0.1	0.4
Sodium	1279	1046	989	437	271	907	799	675	672	762	691
Zinc	0.2	0.4	0.4	0.05	<0.02	0.02	0.04	0.08	0.06	0.02	0.03
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	333	224	196	251	167	421	426	198	272	307	204
Chloride	1368	643	642	229	261	501	524	444	1068	407	916
Fluoride	1	1.4	1.4	1	0.5	2.3	2.3	3	3	0.9	1
Nitrate + Nitrite	193	70	55	29	13	7.8	8.8	0.6	6.9	8.4	72
pH	8	7.6	7.7	7.4	7.7	8	7.9	8	7.2	8	7.7
Specific Conductivity	9650	5620	5450	3170	2100	4470	4420	4000	4060	4650	6110
Sulfate	2666	1763	1737	961	487	1365	1415	1427	3393	1818	1840
Total Dissolved Solids	7661	3974	3848	2276	1414	3135	3060	2893	2974	3630	4697
Total Suspended Solids	34	25	33	15	1.2	3.8	8.7	43	299	14	<1
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-108 8/20/2002	EP-108 11/13/2002	EP-109 8/14/2002	EP-110 8/6/2002	EP-111 8/16/2002	EP-111 11/7/2002	EP-112 8/16/2002	EP-112 11/7/2002	EP-113 8/16/2002	EP-113 11/7/2002	EP-114 8/5/2002
Total Metals (mg/L)											
Arsenic	1.2	1	0.02	0.01	1.1	1.3	0.02	0.02	0.01	0.01	301
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.9
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.09
Iron	0.2	0.3	0.2	<0.1	1.4	2.1	0.2	0.1	0.6	0.7	117
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.07
Selenium	0.04	0.04	0.05	0.02	0.02	0.01	0.02	0.02	0.007	0.006	<0.1
Zinc	<0.02	<0.02	<0.02	0.03	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	29
Dissolved Metals (mg/L)											
Arsenic	1.2	0.9	0.02	0.01	1.1	1	0.02	0.02	0.01	0.01	283
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.3
Calcium	43	54	86	167	238	242	226	239	124	134	543
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	1.3	1.3	0.2	<0.1	0.6	0.7	45
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	26	38	65	68	74	71	109	113	57	61	228
Potassium	41	19	16	20	70	79	90	105	37	40	187
Selenium	0.04	0.04	0.05	0.02	0.02	0.009	0.03	0.02	0.006	<0.005	<0.1
Sodium	262	417	654	420	942	941	1027	1031	632	663	956
Zinc	<0.02	<0.02	0.02	0.03	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	10
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	250	325	401	289	338	357	545	521	355	356	875
Chloride	115	215	375	335	625	654	647	659	336	422	883
Fluoride	2.4	2.3	2.4	0.8	3	3	2.3	2.4	3.5	3.2	9
Nitrate + Nitrite	2.2	3.6	7.4 J	6.8	<0.05	<0.1	0.07	2.2	<0.05	<0.1	1.1
pH	7.9	7.9	8	7.7	7.9	7.4	7.9	7.6	7.8	7.7	7.3
Specific Conductivity	1803	2360	3830	2990	5460	5450	6730	6860	3840	3890	7980
Sulfate	552	713	1322	813	1906	2073	2748	2532	1333	1247	3582
Total Dissolved Solids	1211	1528	2666	2140	3905	4047	4617	4730	2666	2717	6908
Total Suspended Solids	11	5.5	10	8.4	4.5	6.6	1.6	<1	2.1	2.5	3093
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-114 11/4/2002	EP-116 8/5/2002	EP-116 11/4/2002	EP-117 8/5/2002	EP-117 11/4/2002	EP-118 8/5/2002	EP-118 11/4/2002	EP-119 8/13/2002	EP-119 11/12/2002	EP-12 8/21/2002	EP-12 11/25/2002
Total Metals (mg/L)											
Arsenic	316	4.7	5.1	6.5	6.2	2.1	0.5	2.4	2.1	0.7	1.3
Cadmium	0.8	3	0.9	0.4	0.2	0.07	0.01	<0.005	<0.005	<0.005	<0.005
Chromium	0.03	0.05	0.02	0.02	<0.01	0.03	<0.01	<0.01	<0.01	0.03	<0.01
Copper	0.1	92	25	0.2	0.08	1.6	0.3	<0.03	<0.03	<0.03	<0.03
Iron	101	57	36	18	7.6	57	31	<0.1	0.3	0.3	0.8
Lead	0.1	8.6	6.2	0.7	0.4	1.9	0.4	<0.003	<0.003	<0.003	0.004
Selenium	<0.02	0.3	0.3	1	1	1.2	0.3	0.2	0.2	0.09	0.1
Zinc	24	33	5.5	0.4	0.4	1	0.3	0.06	<0.02	0.03	<0.02
Dissolved Metals (mg/L)											
Arsenic	318	0.04	2.8	6	6.1	1.7	0.4	2.1	2.1	0.6	1
Cadmium	0.1	2.5	0.3	0.1	0.1	0.01	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	557	423	236	275	281	182	139	138	135	104	215
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01
Copper	<0.03	29	2	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	48	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 UJ	<0.1	<0.1	0.2
Lead	<0.01	0.1	0.01	0.005	0.004	0.01	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	246	47	77	40	40	46	49	57	55	59	84
Potassium	212	23	46	94	100	20	18	55	55	7.5	20
Selenium	<0.02	0.2	0.2	1.1	1.1	1.3	0.3	0.2	0.2	0.07	0.08
Sodium	980	569	896	644	621	478	454	656	552	777	818
Zinc	8.4	26	1.9	0.09	0.2	0.04	0.04	0.06	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	833	509	662	370	342	427	418	423	421	1775	1041
Chloride	893	373	468	405	409	218	299	312	372	404	620
Fluoride	9	4	4.8	3.4	3.4	2.6	1.7	3.5	3.7	0.9	1.3
Nitrate + Nitrite	<0.05	10	10	11	12	18	8.6	2.4	2.1	0.4	8.4
pH	6.9	7.2	7.6	7.7	7.6	7.9	7.8	8	7.7	8	7.3
Specific Conductivity	8040	4570	5500	4280	4280	3190	2900	3670	3690	4250	5200
Sulfate	3125	2034	2000	1496	1369	1203	990	1189	1248	376	1269
Total Dissolved Solids	7007	3581	3778	3143	3163	2375	2005	2556	2581	2949	3781
Total Suspended Solids	3016	1423	929	697	388	2892	2580	3.8	16	31	38
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-120 8/20/2002	EP-121 8/20/2002	EP-121 11/13/2002	EP-122 8/15/2002	EP-122 11/7/2002	EP-123 8/14/2002	EP-123 11/13/2002	EP-124 8/22/2002	EP-124 11/25/2002	EP-125 8/9/2002	EP-126 8/9/2002
Total Metals (mg/L)											
Arsenic	0.3	0.5	0.5	2.5	2.2	3	1.9	9.9	7.8	0.02	0.02
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	0.01	0.005	0.007
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	0.06	0.04	<0.03
Iron	0.3	0.5	0.6	<0.1	<0.1	<0.1	<0.1	4	7.8	3.1	<0.1
Lead	0.004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.04	0.07	0.01	0.004
Selenium	0.3	0.03	0.02	0.2	0.2	0.07	0.06	0.02	0.01	0.3	0.7
Zinc	0.05	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	0.09	0.1	2.5	0.05
Dissolved Metals (mg/L)											
Arsenic	0.3	0.5	0.5	2.3	2.2	3	1.9	10	7.8	0.02	0.02
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	0.007
Calcium	152	81	81	124	106	44	54	103	91	412	291
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.8	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003	<0.003
Magnesium	77	62	65	57	47	28	31	37	39	269	129
Potassium	28	9	3.3	42	42	10	9.7	26	36	40	28
Selenium	0.3	0.03	0.03	0.2	0.2	0.07	0.07	0.009	0.009	0.3	0.7
Sodium	470	507	537	552	535	631	535	863	842	2291	824
Zinc	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	0.03	2.5	0.04
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	447	388	406	427	375	415	357	500	390	1351	276
Chloride	213	318	369	356	268	218	217	483	1101	263	484
Fluoride	2.3	2.1	1.9	3.5	4.2	3.1	2.9	6.2	6.3	1.7	0.9
Nitrate + Nitrite	4	5.1	6.7	6.3 J	6.5	6.2 J	4.8	0.07	<0.1	8.3	28
pH	8	8.1	7.9	7.9	8	8	8.1	7.8	7.2	7.9	7.9
Specific Conductivity	3370	2990	3200	3560	3180	3300	2940	4530	4490	10680	5120
Sulfate	1283	847	1002	1186	960	964	1018	1251	2886	6715	2271
Total Dissolved Solids	2456	1989	2147	2539	2186	2261	1971	3181	3081	9748	4051
Total Suspended Solids	12	31	36	5.3	2	5.2	5.9	1021	164	207	3.3
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-127 8/16/2002	EP-127 11/7/2002	EP-128 8/16/2002	EP-128 11/7/2002	EP-129 8/19/2002	EP-13 8/7/2002	EP-13 11/5/2002	EP-130 8/8/2002	EP-131 8/8/2002	EP-132 8/13/2002	EP-132 11/12/2002
Total Metals (mg/L)											
Arsenic	3	2.5	0.8	0.7	0.008	30	26	0.3	1.4	2.3	2
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.6	0.5	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1	0.6	0.6	0.7	2.3	0.1	0.1	4.4	0.7	0.4	0.7
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	0.005	0.003	0.01	0.004	<0.003	<0.003
Selenium	0.03	0.02	0.02	0.01	0.03	5.6	4.4	0.3	0.1	0.3	0.2
Zinc	<0.02	0.03	<0.02	0.02	<0.02	0.05	0.03	0.07	0.03	0.03	0.02
Dissolved Metals (mg/L)											
Arsenic	2.7	2.5	0.7	0.7	0.007	28	23	0.2	1.2	2.1	2.1
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.5	0.5	<0.005	<0.005	<0.005	<0.005
Calcium	324	271	162	157	176	336	294	712	174	217	228
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.9	0.5	0.6	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 UJ	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	87	76	57	58	105	67	63	330	58	47	47
Potassium	78	86	46	48	8	62	60	31	21	45	52
Selenium	0.03	0.02	0.02	0.01	0.03	4.8	4	0.3	0.1	0.2	0.2
Sodium	1122	963	1150	1078	510	1959	1721	1542	912	672	623
Zinc	<0.02	0.03	0.05	0.03	<0.02	0.03	0.04	0.05	<0.02	0.03	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	484	473	388	354	415	370	326	749	399	325	351
Chloride	665	643	772	995	390	675	828	1171	472	378	399
Fluoride	5.2	5.2	1.6	1.6	0.7	1.5	1.4	0.7	2.4	4.5	4.2
Nitrate + Nitrite	<0.05	<0.1	<0.05	0.2	11 J	129	108	220	6.9	15	13
pH	8	7.5	7.8	7.5	8.2	7.9	7.6	7.8	8	7.9	7.7
Specific Conductivity	6680	6260	6890	6800	3710	10000	9460	10560	4620	4030	4080
Sulfate	2722	2527	2034	2222	1065	4202	3750	2838	1474	1345	1407
Total Dissolved Solids	4863	4552	4309	4222	2700	8070	7324	8608	3322	2901	2974
Total Suspended Solids	6	5.5	3.7	4.2	83	4	1.1	135	26	27	17
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-133 12/18/2002	EP-134 12/18/2002	EP-135 12/17/2002	EP-136 12/18/2002	EP-137 12/18/2002	EP-14 8/7/2002	EP-14 11/5/2002	EP-15 8/7/2002	EP-20 8/5/2002	EP-20 11/4/2002	EP-21 8/21/2002
Total Metals (mg/L)											
Arsenic	2.1	0.9	3	0.09	0.8	1.7	1.6	0.01	1.3	1.2	0.06
Cadmium	<0.005	<0.005	<0.005	<0.005	0.05	<0.005	<0.005	0.005	0.08	0.1	<0.005
Chromium	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	0.03	0.04
Iron	2.4	3.2	3.2	2	2.7	0.1	<0.1	1.1	3.3	0.9	2.6
Lead	0.006	0.03	0.003	0.004	0.03	<0.003	<0.003	<0.003	0.01	0.003	0.008
Selenium	0.1	0.03	0.2	0.02	0.5	0.3	0.3	0.2	0.4	0.3	0.02
Zinc	0.03	0.05	0.06	0.04	0.2	0.05	<0.02	0.03	0.09	0.1	0.5
Dissolved Metals (mg/L)											
Arsenic	2.2	0.8	2.7	0.1	0.8	1.6	1.6	0.01	1.3	1.2	0.009
Cadmium	<0.005	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005	0.08	0.1	<0.005
Calcium	231	240	637	323	160	314	304	165	437	459	36
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.9	0.1	<0.1	1.5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	60	76	201	146	77	82	80	62	200	191	34
Potassium	54	54	18	99	28	46	55	11	46	52	220
Selenium	0.2	0.02	0.2	0.01	0.5	0.3	0.3	0.2	0.4	0.3	0.008
Sodium	873	865	1383	1057	833	762	750	792	1476	1195	744
Zinc	0.04	0.05	0.07	0.05	0.1	<0.02	0.04	<0.02	0.04	0.1	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	451	362	326	616	293	420	407	384	310	321	1830
Chloride	557	569	1407	684	575	390	531	353	560	507	677
Fluoride	2.8	2.9	2.3	2.2	1.7	1.6	1.6	1.2	2.7	2.1	5.6
Nitrate + Nitrite	0.2	<0.1	72	<0.1	11	19	23	14	73	71	<0.05
pH	7.7	7.6	7.5	7.6	7.6	7.9	7.5	8.2	7.5	7.5	7.4
Specific Conductivity	4820	5100	8750	6560	4560	4990	4950	4220	8540	7680	5030
Sulfate	1685	1933	3066	2426	1456	1629	1757	1401	3828	3359	77
Total Dissolved Solids	3580	3748	7212	4894	3370	3767	3738	3052	7183	6328	2852
Total Suspended Solids	25	142	142	22	124	3.4	1.3	47	161	35	1950
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-21 11/25/2002	EP-22 8/9/2002	EP-22 11/6/2002	EP-23 8/14/2002	EP-23 11/12/2002	EP-24 8/14/2002	EP-24 11/12/2002	EP-25 8/21/2002	EP-25 11/25/2002	EP-26 8/12/2002	EP-26 11/6/2002
Total Metals (mg/L)											
Arsenic	0.2	5.2	5.8	1.3	1.2	0.6	0.3	10	11	0.5	0.2
Cadmium	0.06	0.01	0.01	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	0.4	0.2
Chromium	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.3	0.1	0.2	<0.03	<0.03	<0.03	<0.03	0.1	0.2	<0.03	<0.03
Iron	26	0.9	0.9	1.4	1.2	1.3	1.2	7.9	7.1	0.1	0.4
Lead	0.1	0.03	0.02	0.01	0.008	0.01	0.006	0.06	0.09	<0.003	0.005
Selenium	0.02	1.1	0.9	0.01	0.02	<0.005	<0.005	0.2	0.2	1.3	1
Zinc	3.1	0.7	0.7	<0.02	0.03	0.1	0.09	0.1	0.09	1.7	0.7
Dissolved Metals (mg/L)											
Arsenic	0.007	4.6	5.7	1.2	1	0.5	0.1	3	6.3	0.4	0.3
Cadmium	<0.005	0.01	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.4	0.2
Calcium	63	460	473	94	92	67	63	78	119	209	215
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.09	0.1	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03
Iron	<0.1	<0.1	<0.1	0.2	0.6	0.5	0.6	0.2	0.7	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.005
Magnesium	45	229	231	62	65	22	19	27	41	66	67
Potassium	159	148	166	44	47	16	16	111	130	59	57
Selenium	0.006	1	0.9	0.01	0.01	<0.005	<0.005	0.02	0.04	1.2	1
Sodium	842	1996	1924	570	593	541	480	883	928	828	781
Zinc	<0.02	0.7	0.7	<0.02	0.02	0.08	0.07	<0.02	<0.02	1.5	0.8
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	2090	665	634	542	476	1169	1138	1769	1602	314	301
Chloride	828	440	589	472	487	537	473	909	986	557	569
Fluoride	4.5	2.5	2.5	2.6	2.8	3.1	3.3	1.9	1.7	1.8	1.9
Nitrate + Nitrite	<0.1	83	121	<0.05 UJ	<0.1	0.09 J	<0.1	<0.05	0.1	33	21
pH	7.6	8.2	7.7	7.7	7.7	7.7	7.7	7.4	7.2	7.8	7.8
Specific Conductivity	5290	10500	10460	4760	4890	3280	3120	5320	5390	5060	4900
Sulfate	179	5204	4949	1501	1605	85	87	50	228	1981	1862
Total Dissolved Solids	2918	9376	9093	2773	2841	2002	1837	3045	3021	3762	3637
Total Suspended Solids	2620	48	45	44	24	7.6	20	557	1868	4.2	16
Volatile Organic Compounds (mg/L)											
Benzene				0.009	0.01					<0.005	<0.005
Ethylbenzene				0.006	0.007					<0.005	<0.005
Toluene				<0.005	<0.005					<0.005	<0.005
Total Xylenes				<0.005	<0.005					<0.005	<0.005
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons				<5	<5					<5	<5

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Location / Sampling Date	EP-29 8/5/2002	EP-29 11/4/2002	EP-35 8/5/2002	EP-35 11/4/2002	EP-4 8/5/2002	EP-43 8/21/2002	EP-49 8/13/2002	EP-49 11/25/2002	EP-5 8/5/2002	EP-5 11/4/2002	EP-51 8/12/2002
Total Metals (mg/L)											
Arsenic	0.3	0.3	0.6	0.7	0.1	0.9	15	0.8	0.1	0.1	0.2
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.03	<0.005	<0.005	0.005	0.05
Chromium	0.01	0.02	0.04	0.04	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.5
Copper	<0.03	<0.03	<0.03	0.03	0.03	<0.03	0.04	<0.03	0.1	0.08	0.2
Iron	7.3	12	0.7	1.9	2	0.3	1.6	0.8	0.5	2	1.9
Lead	0.01	0.01	0.009	0.01	0.02	0.009	0.005	0.01	0.02	0.03	0.009
Selenium	0.2	0.2	0.7	0.6	0.008	0.03	0.3	0.03	0.008	<0.005	0.2
Zinc	0.03	<0.07	0.02	<0.1	0.03	0.03	10	0.02	0.03	<0.07	0.7
Dissolved Metals (mg/L)											
Arsenic	0.3	0.2	0.6	0.4	0.09	0.6	13	0.5	0.1	0.1	0.1
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005	0.05
Calcium	57	61	382	407	105	110	480	258	98	104	869
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.08	0.08	0.1
Iron	<0.1	<0.1	<0.1	<0.1	0.4	0.2	0.2 J	0.2	<0.1	<0.1	0.5
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.006	<0.003	<0.003
Magnesium	23	24	135	149	28	28	130	113	51	46	727
Potassium	15	19	15	19	13	29	224	47	12	12	55
Selenium	0.2	0.2	0.7	0.6	0.007	0.01	0.2	0.02	0.008	0.005	0.2
Sodium	722	690	1017	1030	301	656	1548	1419	974	828	1765
Zinc	<0.02	0.03	<0.02	0.06	<0.02	0.02	9.3	<0.02	<0.02	0.05	0.7
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	345	447	589	650	390	1171	809	943	931	947	266
Chloride	313	345	559	553	209	480	581	1299	494	543	4701
Fluoride	3	3	1.1	1.2	0.8	3	6.4	2.4	2.9	2.6	0.9
Nitrate + Nitrite	6.3	5.7	34	31	<0.05	0.1	29	0.2	<0.3	0.1	95
pH	7.9	7.9	7.7	7.6	7.9	7.5	7.9	7.4	8	7.8	7.9
Specific Conductivity	3560	3540	6370	6320	1957	3610	9650	6080	4660	4070	16430
Sulfate	1015	1002	2408	2346	434	333	4988	808	904	647	2244
Total Dissolved Solids	2376	2343	5088	4914	1266	2287	7650	3815	3148	2675	11375
Total Suspended Solids	664	806	31	109	50	39	15	19	14	37	15
Volatile Organic Compounds (mg/L)											
Benzene											<0.001
Ethylbenzene											<0.001
Toluene											<0.001
Total Xylenes											<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											<5

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Location / Sampling Date	EP-51 11/6/2002	EP-52 8/12/2002	EP-52 11/6/2002	EP-53 8/14/2002	EP-53 11/6/2002	EP-54 8/13/2002	EP-54 11/6/2002	EP-56 8/12/2002	EP-56 11/12/2002	EP-57 8/21/2002	EP-58 8/21/2002
Total Metals (mg/L)											
Arsenic	0.3	0.6		35	23	20	37	3.3	3	0.4	4.3
Cadmium	0.05	0.4		0.4	0.2	0.5	0.8	0.04	<0.005	<0.005	<0.005
Chromium	1	0.05		<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
Copper	0.2	0.4		<0.03	0.05	0.5	1.1	0.03	0.03	<0.03	<0.03
Iron	2.6	2.2		0.3	0.9	5.7	23	3.6	4.5	1.8	1.4
Lead	0.007	0.7		0.005	<0.003	0.02	0.03	0.009	0.005	<0.003	<0.003
Selenium	0.2	0.2		3.6	0.9	0.2	0.2	0.04	0.03	0.01	0.1
Zinc	0.6	3.2		0.9	0.8	7.3	11	0.1	0.02	0.02	0.03
Dissolved Metals (mg/L)											
Arsenic	0.1	0.2		32	21	16	17	3	3	0.07	4.6
Cadmium	0.05	0.4		0.4	0.2	0.3	0.4	0.03	<0.005	<0.005	<0.005
Calcium	1011	454		368	168	443	484	113	116	224	490
Chromium	0.02	<0.01		<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.2	0.4		<0.03	0.03	0.3	0.3	<0.03	<0.03	<0.03	<0.03
Iron	0.6	0.2		<0.1	<0.1	<0.1 UJ	<0.1	<0.1	0.4	<0.1	1.1
Lead	<0.003	0.05		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	802	284		78	44	190	208	28	29	160	221
Potassium	58	18		61	59	232	312	17	17	20	216
Selenium	0.2	0.2		3.2	0.9	0.1	0.1	0.04	0.03	<0.005	0.09
Sodium	1646	2242		1042	967	1458	1453	668	625	952	1712
Zinc	0.5	3.1		1	0.8	6.9	8.8	0.1	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	262	748		273	375	1177	1089	348	350	1354	1203
Chloride	5305	1213		421	1002	745	767	361	462	555	927
Fluoride	0.9	5.4		5.4	5.6	10	9	3.2	3.3	1	5.6
Nitrate + Nitrite	178	47		140	32	20	13	1 J	0.7	0.3	0.08
pH	7.3	7.8		7.3	7.4	7.9	7.6	7.8	7	7.9	7.7
Specific Conductivity	16800	11900		7060	6090	9170	8270	3700	3780	5880	11010
Sulfate	2319	5155		1286	2323	4059	3285	1131	1220	1602	4899
Total Dissolved Solids	11357	10276		5533	4206	7435	6185	2508	2608	4376	8456
Total Suspended Solids	30	12		7	19	30	61	151	104	37	12
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.01	<0.001	<0.001		
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5	<5	<5	<5	<5	<5	<5	<5	<5		

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Location / Sampling Date	EP-58 11/25/2002	EP-59 8/13/2002	EP-59 11/12/2002	EP-6 8/5/2002	EP-6 11/4/2002	EP-60 8/13/2002	EP-60 11/12/2002	EP-61 8/21/2002	EP-62 8/13/2002	EP-62 11/12/2002	EP-63 8/13/2002
Total Metals (mg/L)											
Arsenic	5	2.4	2	0.03	0.03	0.01		0.03	1.7	1.5	0.03
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	0.02	0.02	<0.01	<0.01	0.1		0.07	<0.01	<0.01	<0.01
Copper	0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	<0.03	<0.03	<0.03
Iron	2	0.3	0.3	0.4	1.9	1.2		18	<0.1	0.1	0.2
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		0.01	<0.003	<0.003	0.006
Selenium	0.08	0.3	0.2	0.1	0.08	0.2		0.4	0.3	0.2	0.08
Zinc	0.03	0.1	<0.02	<0.02	<0.06	0.06		0.07	0.07	0.02	0.07
Dissolved Metals (mg/L)											
Arsenic	4.9	2.1	2	0.03	0.008	0.01		0.02	1.6	1.5	0.03
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Calcium	503	136	131	213	228	533		277	164	154	218
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
Copper	0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	<0.03	<0.03	<0.03
Iron	1.8	<0.1 UJ	<0.1	<0.1	<0.1	<0.1 UJ		0.3	<0.1 UJ	<0.1	<0.1 UJ
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
Magnesium	218	69	67	71	75	197		123	68	63	123
Potassium	227	74	73	19	22	13		14	54	54	29
Selenium	0.09	0.2	0.2	0.1	0.09	0.2		0.3	0.3	0.2	0.08
Sodium	1669	753	659	1002	943	1294		1197	753	637	1271
Zinc	0.03	0.1	<0.02	<0.02	0.05	0.04		<0.02	0.07	0.03	0.06
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	1186	465	465	482	466	349		495	398	395	680
Chloride	1025	369	427	525	474	859		558	387	401	762
Fluoride	5.7	5.6	6.3	2.5	2.2	1.7		1.8	3.3	3.3	2
Nitrate + Nitrite	<0.1	3.9	4	0.9	4.9	35		55	3.1	3	<0.3
pH	7.2	8	7.7	7.9	7.7	8		8	7.8	7.5	8.1
Specific Conductivity	10980	4220	4200	5520	5180	8020		6870	4130	4080	6750
Sulfate	4586	1334	1348	1941	1538	4472		2262	1683	1380	2460
Total Dissolved Solids	8387	3059	2975	4059	3877	6666		5451	2954	2878	4928
Total Suspended Solids	13	8.6	3.2	3.6	15	12		1557	2.5	2.3	4.2
Volatile Organic Compounds (mg/L)											
Benzene		<0.001	<0.001			<0.001	<0.001		<0.001	<0.001	<0.001
Ethylbenzene		<0.001	<0.001			<0.001	<0.001		<0.001	<0.001	<0.001
Toluene		<0.001	<0.001			<0.001	<0.001		<0.001	<0.001	<0.001
Total Xylenes		<0.001	<0.001			<0.001	<0.001		<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons		<5	<5			<5	<5		<5	<5	<5

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Location / Sampling Date	EP-63 11/12/2002	EP-64 8/13/2002	EP-64 11/12/2002	EP-65 8/21/2002	EP-66 8/13/2002	EP-66 11/12/2002	EP-67 8/6/2002	EP-68 8/6/2002	EP-7 8/5/2002	EP-7 11/4/2002	EP-70 8/7/2002
Total Metals (mg/L)											
Arsenic		0.1	0.08	0.009	11	7.9	0.02	0.007	0.1	0.06	1
Cadmium		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper		<0.03	<0.03	<0.03	0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03
Iron		<0.1	0.1	0.2	0.1	<0.1	0.2	0.4	2.1	1.5	<0.1
Lead		0.004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Selenium		0.5	0.5	0.3	0.4	0.3	0.08	0.3	<0.005	<0.005	0.2
Zinc		0.1	0.03	0.02	0.07	0.04	0.02	0.02	<0.02	<0.03	0.1
Dissolved Metals (mg/L)											
Arsenic		0.1	0.08	0.007	10	7.3	0.02	0.007	0.09	0.05	0.9
Cadmium		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
Calcium		368	411	226	491	438	431	246	51	53	274
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron		<0.1 UJ	<0.1	<0.1	<0.1 UJ	<0.1	<0.1	<0.1	1.3	0.6	<0.1
Lead		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium		117	128	97	126	103	120	106	16	16	141
Potassium		18	25	19	41	34	11	12	6.2	6.2	23
Selenium		0.5	0.5	0.3	0.4	0.2	0.08	0.3	<0.005	<0.005	0.2
Sodium		1766	1648	1007	1280	956	437	716	388	371	1114
Zinc		0.1	0.03	<0.02	0.05	0.04	0.03	<0.02	<0.02	0.03	0.1
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity		270	301	580	509	409	209	268	340	334	239
Chloride		643	699	516	427	455	389	660	190	205	567
Fluoride		1.8	2	2.3	3.9	3.4	0.8	0.8	2.1	2.1	1.3
Nitrate + Nitrite		59	64	11	33	26	9.7	24	<0.05	<0.05	48
pH		8.1	7.9	8.1	8	7.8	7.6	7.9	8	8	7.2
Specific Conductivity		8860	9200	5660	7830	6280	4190	5290	2090	2020	6380
Sulfate		3966	2180	2131	4417	3016	1804	1618	491	457	2373
Total Dissolved Solids		7293	7499	4301	6595	5162	3527	3972	1330	1292	4925
Total Suspended Solids		4.3	2.9	7.1	12	2	17	36	12	13	2.6
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001	<0.001		<0.001	<0.005					
Ethylbenzene	<0.001	<0.001	<0.001		<0.001	<0.005					
Toluene	<0.001	<0.001	<0.001		<0.001	<0.005					
Total Xylenes	<0.001	<0.001	<0.001		<0.001	<0.005					
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5	<5	<5		<5	<5					

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Location / Sampling Date	EP-71 8/6/2002	EP-72 8/7/2002	EP-73 8/12/2002	EP-75 8/9/2002	EP-75 11/6/2002	EP-76 8/9/2002	EP-76 11/6/2002	EP-77 8/8/2002	EP-77 11/6/2002	EP-78 8/14/2002	EP-78 11/13/2002
Total Metals (mg/L)											
Arsenic	0.2	0.2	0.02	17	17	0.9	0.4	4.6	4.5	3.7	3.6
Cadmium	<0.005	<0.005	<0.005	0.007	0.02	<0.005	<0.005	<0.005	0.03	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	0.04	0.04	<0.03	<0.03	<0.03	0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	2.1	1.3	0.2	0.1
Lead	<0.003	<0.003	<0.003	0.008	<0.003	0.005	0.004	0.007	<0.003	0.005	<0.003
Selenium	0.2	10	0.9	4.8	3.8	0.2	0.1	0.02	0.02	0.6	0.3
Zinc	<0.02	0.06	0.04	0.1	0.09	0.07	0.05	0.04	0.03	<0.02	0.02
Dissolved Metals (mg/L)											
Arsenic	0.1	0.2	0.03	15	14	0.8	0.4	4.6	4.5	3.8	3.6
Cadmium	<0.005	<0.005	<0.005	0.005	0.02	<0.005	<0.005	<0.005	0.02	<0.005	<0.005
Calcium	315	279	213	342	341	132	137	119	120	33	58
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	154	317	94	309	328	79	83	31	34	19	32
Potassium	16	16	268	541	540	88	56	19	23	36	44
Selenium	0.2	8.7	0.8	3.6	3.5	0.2	0.1	0.02	0.02	0.6	0.4
Sodium	975	1630	939	3288	3028	872	750	835	769	426	448
Zinc	<0.02	0.06	0.04	0.09	0.09	0.06	0.05	0.04	0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	311	384	338	610	482	520	512	388	387	354	303
Chloride	516	508	423	269	288	428	498	447	504	107	221
Fluoride	1	1.3	2.7	2.3	2.7	2.3	2.2	3.8	3.1	3.4	3.8
Nitrate + Nitrite	50	40	15 J	138	164	4.3	4.3	0.7	0.3	12	7.6
pH	7.8	7.9	8	8.1	7.5	8.2	8	8.1	8	7.4	7.5
Specific Conductivity	6250	8560	5920	17630	17300	4690	4400	4190	4210	2520	2780
Sulfate	2430	3741	2491	12002	10516	1620	1352	1243	1322	785	859
Total Dissolved Solids	5057	7361	4496	16266	15928	3416	3132	2904	2898	1696	1804
Total Suspended Solids	1	1.5	6.8	7.3	4.6	<1	1.2	182	145	6.5	5.2
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-79 8/14/2002	EP-80 8/15/2002	EP-80 11/7/2002	EP-81 8/15/2002	EP-82 8/14/2002	EP-83 8/19/2002	EP-84 8/19/2002	EP-85 8/15/2002	EP-85 11/13/2002	EP-86 8/14/2002	EP-88 8/9/2002
Total Metals (mg/L)											
Arsenic	0.01	0.02	0.01	0.2	0.01	0.006	0.03	2	1.8	0.01	0.06
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03
Iron	<0.1	1.1	0.2	1.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	3.4
Lead	<0.003	0.004	<0.003	0.005	<0.003	<0.003	0.02	<0.003	<0.003	<0.003	0.03
Selenium	0.08	<0.005	0.02	0.3	0.2	0.04	0.02	0.2	0.3	0.03	0.09
Zinc	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06
Dissolved Metals (mg/L)											
Arsenic	0.01	0.02	0.01	0.3	0.01	0.006	0.03	1.9	1.8	0.01	0.04
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005
Calcium	38	134	200	193	111	64	202	97	94	38	69
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.01	<0.003	<0.003	<0.003	<0.003
Magnesium	44	62	88	76	71	56	94	47	45	30	49
Potassium	6.1	16	19	20	23	8	6.8	25	24	7.2	6.2
Selenium	0.09	<0.005	0.01	0.3	0.2	0.04	0.02	0.2	0.2	0.03	0.08
Sodium	822	734	906	299	850	697	314	507	442	468	939
Zinc	0.02	0.02	0.02	0.03	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	473	529	560	532	525	387	317	390	397	361	569
Chloride	395	407	461	59	442	420	311	208	216	290	431
Fluoride	5.6	1.3	1.5	2.4	2.9	3.2	0.7	3.2	3.2	2.8	1.9
Nitrate + Nitrite	7.1 J	<0.05 UJ	1.7	9.3 J	6.4 J	8.6 J	9.2 J	8 J	7.5	5.9 J	5.3
pH	8.1	8	7.9	7.8	8.2	8.1	8.1	8	7.9	8	7.8
Specific Conductivity	4190	4280	5200	2570	4730	3820	2950	3150	2880	2660	4610
Sulfate	1262	1351	2189	966	1349	1144	882	947	877	711	1511
Total Dissolved Solids	2896	3096	3905	1992	3368	2631	2161	2185	1960	1706	3220
Total Suspended Solids	3.7	47	7.1	40	2.3	3.1	1	1.8	2.2	3.4	384
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-89 8/6/2002	EP-90 8/7/2002	EP-93 8/19/2002	EP-94 8/19/2002	EP-95 8/19/2002	EP-96 8/19/2002	EP-97 8/19/2002	EP-98 8/19/2002
Total Metals (mg/L)								
Arsenic	0.008	0.2	0.009	0.008	0.01	0.009	0.2	0.02
Cadmium	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	0.01	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.2	<0.03
Iron	<0.1	2.6	1.5	<0.1	<0.1	0.4	2	0.4
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.07	0.006
Selenium	0.02	0.6	0.04	0.03	0.03	0.03	0.02	0.4
Zinc	0.03	0.04	<0.02	<0.02	<0.02	<0.02	0.1	<0.02
Dissolved Metals (mg/L)								
Arsenic	0.007	0.2	0.008	0.007	0.01	0.009	0.2	0.02
Cadmium	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	0.01	<0.005
Calcium	174	164	70	99	37	110	143	79
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.09	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.03	<0.003
Magnesium	68	89	63	96	65	84	100	77
Potassium	17	9.6	7.8	12	<2	11	11	92
Selenium	0.02	0.5	0.04	0.03	0.03	0.03	0.01	0.3
Sodium	413	844	930	822	594	833	880	1090
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.09	<0.02
Water Quality Parameters (mg/L)								
Bicarbonate Alkalinity	278	407	616	427	356	484	722	482
Chloride	349	479	511	507	440	523	491	588
Fluoride	0.8	0.6	1.8	1.4	4.1	1.2	1.6	2.3
Nitrate + Nitrite	7.3	15	6.7 J	11 J	8.1 J	13 J	<0.05 UJ	10 J
pH	7.7	7.9	8	8.2	8.1	8.2	8.4	8.2
Specific Conductivity	3020	4690	4630	4540	3340	4600	5020	5850
Sulfate	878	1590	1271	1376	865	1323	1354	1943
Total Dissolved Solids	2144	3446	3232	3168	2248	3263	3717	4134
Total Suspended Solids	8	159	65	1	<1	18	124	18
Volatile Organic Compounds (mg/L)								
Benzene								
Ethylbenzene								
Toluene								
Total Xylenes								
Petroleum Hydrocarbons (mg/L)								
Total Petroleum Hydrocarbons								

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Location / Sampling Date	EP-1 2/3/1999	EP-12 2/25/1999	EP-12 5/14/1999	EP-13 2/8/1999	EP-13 5/6/1999	EP-14 2/8/1999	EP-14 5/6/1999	EP-15 2/8/1999	EP-15 5/5/1999	EP-20 2/4/1999	EP-20 5/4/1999
Dissolved Metals (mg/L)											
Arsenic		1.8	2.4	36	38	1.7	1.7	0.03	0.008	0.8 J	0.9
Cadmium		<0.005	<0.005	0.7	0.7	<0.005	<0.005	0.02	0.005	0.04	0.05
Calcium		288	340	354	309	383	339	166	197	447	474
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron		4.7	0.7	<0.1	<0.1	0.3	0.2	<0.1	<0.1	<0.1	<0.1
Lead		<0.003	<0.003	<0.003	0.007	0.003	0.006	<0.003	<0.003	<0.003	<0.003
Magnesium		86	134	65	61	98	91	59	77	260	302
Potassium		15	27	90	76 J	60	55 J	13	11	76	56
Selenium		0.5	0.3 J	5.1	5.1	0.3	0.3	0.1	0.2	0.3	0.4
Sodium		775	1096	2040	2555	670	730	520	710	1801	2014
Zinc		<0.02	0.02	0.1	0.08	0.03	<0.02	0.05	0.07	<0.04	0.03
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity		775	2013 J	394	411	381	443	268	299	359	351
Chloride		323	372	680	644 J	307	295 J	367	381	621	773
Fluoride		1	0.8	1.6	1.5	2	1.9	0.9	0.8	2.3	2.1 J
Nitrate + Nitrite		13	10	82	119	18	29	18	21	107	172
pH (SU)		7.4	7.7	7.6	7.7	7.6	7.4	7.8	7.7	7.4	7.4
Specific Conductivity (umhos/cm)		4890	6020 J	11200	10640	5070	4900	3620	4170	9910	10320
Sulfate		1412	2121	4565	4552 J	1537	1906 J	958	1212 J	3750	4861 J
Total Dissolved Solids		3854	4936	9447	8889	4178	3939	2579	3083	8707	9135
Total Suspended Solids		16 J	41 J	12 J	6.8	6.8 J	5.6	94 J	75	45 J	53 J
Volatile Organic Compounds (mg/L)											
Benzene	<0.001			<0.001 UJ		<0.001 UJ		<0.001 UJ	<0.001 UJ	<0.001	<0.001 UJ
Ethylbenzene	<0.001			<0.001 UJ		<0.001 UJ		<0.001 UJ	<0.001 UJ	<0.001	<0.001 UJ
Toluene	<0.001			<0.001 UJ		<0.001 UJ		<0.001 UJ	<0.001 UJ	<0.001	<0.001 UJ
Total Xylenes	<0.001			0.003 J		0.003 J		0.003 J	<0.001 UJ	<0.001	<0.001 UJ
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5			<5 UJ		<5 UJ		<5 UJ	<5 UJ	<5	<5 UJ

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Location / Sampling Date	EP-21 2/24/1999	EP-23 2/11/1999	EP-23 5/7/1999	EP-23 5/14/1999	EP-24 2/11/1999	EP-24 5/14/1999	EP-25 5/14/1999	EP-26 2/4/1999	EP-26 5/5/1999	EP-29 2/3/1999	EP-29 5/4/1999
Dissolved Metals (mg/L)											
Arsenic	0.03	0.8	1.9	4.9	0.2	0.1	1	0.4 J	0.3	0.3	0.3
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.2	0.7	<0.005	<0.005
Calcium	44	152	74	69	206	212	675	8.3	30	49	49
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	<0.03
Iron	0.2	0.3	0.3	0.3	<0.1	0.7	26	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.004	0.01	<0.003	<0.003
Magnesium	40	80	44	49	80	92	50	1.1	4.1	21	22
Potassium	347	65	57	97	35	50	738	<5	5	22	16
Selenium	0.02	0.01	<0.005	0.008 J	0.005	0.3 J	0.8 J	0.06	0.2	0.2	0.1
Sodium	919	640	580	599	920	1096	700	14	25	660	732
Zinc	<0.02	<0.02	0.02 J	<0.02	<0.02	<0.02	0.02	0.5	2.3	0.03	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	2142	443	676	717 J	1576	1642 J	771 J	20	41	337	317
Chloride	570	462	330	290	1021	1195	885	7.6	18	307	326
Fluoride	6	3.2	3.8	2	2.5	2.2	5	0.6	0.5	2.9	3 J
Nitrate + Nitrite	0.3	<0.05	0.1 J	<0.1	0.2	<0.1	0.7	1.4	3	8.7	4.4
pH (SU)	8.1	7.8	7.8	7.8	7.8	7.4	7	7.4	7.3	8.1	8.2
Specific Conductivity (umhos/cm)	5670	5470	4310	4190 J	5800	6410 J	7880 J	133	362	3130	3160
Sulfate	405 J	1144	901	1403	206	1132	2996	29	89 J	743	1049 J
Total Dissolved Solids	3486	3346	2374	2388	3336	4137	6245	78	239	2121	2079
Total Suspended Solids	23	150	87	47 J	79	31 J	12081	51 J	244	211	170 J
Volatile Organic Compounds (mg/L)											
Benzene			0.06					<0.001	<0.001 UJ	<0.001	
Ethylbenzene			0.02					<0.001	<0.001 UJ	<0.001	
Toluene			<0.001					<0.001	<0.001 UJ	<0.001	
Total Xylenes			0.02					<0.001	<0.001 UJ	<0.001	
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons			<5					<5	<5	<5	

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Location Sampling Date	EP-3 5/4/1999	EP-31 2/4/1999	EP-32 2/4/1999	EP-35 2/4/1999	EP-35 5/4/1999	EP-36 2/4/1999	EP-38 2/4/1999	EP-39 2/4/1999	EP-4 2/3/1999	EP-4 5/5/1999	EP-40 2/4/1999
Dissolved Metals (mg/L)											
Arsenic				0.5 J	0.6				0.08 J	0.09	
Cadmium				<0.005	<0.005				<0.005	<0.005	
Calcium				402	426				101	113	
Chromium				<0.01	<0.01				<0.01	<0.01	
Copper				<0.03	<0.03				<0.03	<0.03	
Iron				<0.1	<0.1				0.3	0.9	
Lead				<0.003	<0.003				<0.003	<0.003	
Magnesium				145	166				27	31	
Potassium				22	18				13	14	
Selenium				2.9	2				<0.005	<0.005	
Sodium				1039	1119				321	282	
Zinc				<0.02	<0.02				<0.02	<0.02	
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity				539	567				778	439	
Chloride				455	561				222	206	
Fluoride				1	1.1 J				0.9	0.9	
Nitrate + Nitrite				66	82				0.2	<0.1	
pH (SU)				7.4	7.4				8.1	7.9	
Specific Conductivity (umhos/cm)				6410	6810				1965	2170	
Sulfate				2158	2822 J				364	418 J	
Total Dissolved Solids				5282	5702				1295	1423	
Total Suspended Solids				93 J	266 J				3434	696	
Volatile Organic Compounds (mg/L)											
Benzene	<0.001 UJ	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001		<0.001
Ethylbenzene	<0.001 UJ	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001		<0.001
Toluene	0.001 J	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001		<0.001
Total Xylenes	<0.001 UJ	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001		<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5 UJ	<5	<5	<5		<5	<5	<5	<5		<5

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Location / Sampling Date	EP-42 2/4/1999	EP-42 5/4/1999	EP-43 2/25/1999	EP-43 5/14/1999	EP-48 2/3/1999	EP-48 5/4/1999	EP-49 2/25/1999	EP-49 5/14/1999	EP-5 2/3/1999	EP-5 5/5/1999	EP-51 2/9/1999
Dissolved Metals (mg/L)											
Arsenic			1.3	0.4			320	354	0.04 J	0.05	0.1
Cadmium			<0.005	<0.005			26	29	<0.005	<0.005	0.08
Calcium			248	385			472	493	74	71	584
Chromium			<0.01	<0.01			<0.05	0.01	<0.01	<0.01	0.02
Copper			<0.03	<0.03			<0.03	0.03	<0.03	<0.03	0.09
Iron			0.5 J	1			1266	1548	0.1	<0.1	3.2 J
Lead			<0.003	<0.003			<0.003	0.005	0.003	0.005	<0.003
Magnesium			108	133			237	288	30	30	366
Potassium			37	77			240	342	5.8	7.5	45
Selenium			0.2	0.3 J			0.3	0.1 J	<0.005	<0.005	0.2
Sodium			1187	1374			794	819	570	585	880
Zinc			<0.02	0.03			789	1063	0.03	0.03	1
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity			683	854 J			<1	<1 UJ	869	805	231
Chloride			1269	1535			684	727	302	285	1671
Fluoride			2.2	2			24	23	2.4	2.6	1.4
Nitrate + Nitrite			3.6	2.9			0.1	0.7	0.3	<0.1	144
pH (SU)			7.8	7.4			4.5	4.2	8	8.1	7.4
Specific Conductivity (umhos/cm)			7140	8600 J			12320	10570 J	2820	2780	9060
Sulfate			1156	1484			5907	7140	318	444 J	1848 J
Total Dissolved Solids			4905	6257			13384	14083	1818	1804	6783
Total Suspended Solids			190 J	52 J			545 J	804	16	14	24
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001			<0.001	<0.001 UJ			<0.001	<0.001 UJ	<0.001
Ethylbenzene	<0.001	0.001			<0.001	<0.001 UJ			<0.001	<0.001 UJ	<0.001
Toluene	<0.001	<0.001			<0.001	<0.001 UJ			<0.001	<0.001 UJ	<0.001
Total Xylenes	<0.001	0.005			<0.001	<0.001 UJ			<0.001	<0.001 UJ	0.003
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5	<5			<5	<5 UJ			<5	<5 UJ	<5 UJ

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Location / Sampling Date	EP-51 5/6/1999	EP-52 2/9/1999	EP-52 5/6/1999	EP-53 2/4/1999	EP-53 5/5/1999	EP-54 2/9/1999	EP-54 5/6/1999	EP-54 5/7/1999	EP-55 2/11/1999	EP-55 5/14/1999	EP-56 2/4/1999
Dissolved Metals (mg/L)											
Arsenic	0.3	0.2	0.8	55	54	50	56	47	55	26	0.7 J
Cadmium	0.05	0.6	1.9	1.7	1.4	0.6	0.5	0.5	<0.005	<0.005	<0.005
Calcium	547	552	522	509	443	455	432	395	527	541	254
Chromium	<0.01	0.03	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.1	0.4	0.4	<0.03	<0.03	0.07	0.06	0.09	<0.03	<0.03	<0.03
Iron	1.5	1.7 J	2.5	<0.1	<0.1	0.4 J	0.2	<0.1	95	52	<0.1
Lead	<0.003	0.02	0.03	<0.003	<0.003	0.004	0.005	<0.003	<0.003	<0.003	0.004
Magnesium	409	275	276	83	86	284	286	226	362	374	67
Potassium	41 J	26	25 J	127	92	320	367	261	175	192	31
Selenium	0.3	0.3	0.4	1.4	1.1	0.1	0.07	0.1	0.08	0.1 J	0.01
Sodium	1158	1730	2170	1140	1245	1410	1484	1411	1350	1654	1073
Zinc	0.7	3.9	3.1	5.7	4.6	10	9.2	8	41	20	<0.04
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	244	706	716	342	311	904	908	847	703	854 J	793
Chloride	2024	1342	1290 J	424	421	756	704 J	648	819	909	597
Fluoride	1.2	6.9	6.6	6.2	6.2	11	9.4	9.2	19	14	1.9
Nitrate + Nitrite	158	112	144	93	112	7.6	6.6 J	3.6 J	0.09	0.1	0.4
pH (SU)	7.3	7.1	7.3	7.1	7.3	7.4	7.1	7.7	6.7	7.1	7.6
Specific Conductivity (umhos/cm)	9870	11150	11250	7040	7120	10500	9540	8980	10240	10510 J	5600
Sulfate	1940 J	3665 J	4484 J	2665	3166 J	3504 J	4250 J	4217	3941	3651	1731
Total Dissolved Solids	7314	9559	9489	6023	5804	8843	7806	7303	8827	8951	4291
Total Suspended Solids	27	51	30	2356 J	238	60	57	58	303	447	1107 J
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001		<0.001	<0.001 UJ	0.008	0.008 J	0.007 J	0.05		<0.001
Ethylbenzene	0.001	<0.001		<0.001	<0.001 UJ	0.004	<0.001 UJ	<0.001 UJ	0.003		<0.001
Toluene	<0.001	<0.001		<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001 UJ	<0.001		<0.001
Total Xylenes	0.005	0.002		<0.001	<0.001 UJ	0.004	0.002 J	0.002 J	0.002		<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5 UJ	<5 UJ		<5	<5 UJ	<5 UJ	<5	<5	<5 UJ		<5

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Location Sampling Date	EP-56 5/4/1999	EP-56 5/5/1999	EP-57 2/24/1999	EP-57 5/13/1999	EP-58 2/24/1999	EP-58 5/13/1999	EP-59 2/10/1999	EP-59 5/6/1999	EP-6 2/3/1999	EP-6 5/5/1999	EP-60 2/10/1999
Dissolved Metals (mg/L)											
Arsenic	1.3		0.6	0.4	3.7	5.1	2.6	3.1	0.01 J	0.02	0.009
Cadmium	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005
Calcium	241		101	62	510	499	203	190	415	387	570
Chromium	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1		<0.1	<0.1	1	0.9	<0.1	<0.1	0.2	<0.1	1.3
Lead	0.005		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	68		71	63	203	244	104	103	137	141	226
Potassium	23		17	17	224	250	100	91 J	34	26	17
Selenium	0.02		0.03	0.6	0.03	0.03	0.3	0.3	0.008	0.007	0.3
Sodium	1051		476	335	1913	2100	720	825	1282	1462	1130
Zinc	0.04		<0.02	<0.02	<0.02	<0.02	0.05	0.04	<0.02	0.03	0.06
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	561		1247	1282	1359	1220	406	434	448	455	305
Chloride	565		238	142	830	709	446	515 J	844	882	1135
Fluoride	2.1 J		1	0.9	5.2	4.8	5	5.6	1.5	1.5	1.7
Nitrate + Nitrite	<0.1		0.8	0.5 J	0.06	<0.1 UJ	15	14	0.4	0.2	57
pH (SU)	7.6		7.7	7.8	7.8	7.2	7.6	7.4	7.9	8.1	7.8
Specific Conductivity (umhos/cm)	5580		3020	2340	11510	11660	5260	5060	7270	7400	8670
Sulfate	2085 J		259 J	56	4560 J	3585	1593	1724	2348	2807 J	2540
Total Dissolved Solids	4141		2078	1459	9294	9162	4083	3749	5643	5803	7317
Total Suspended Solids	1607		529	20	58	83	13	8.2	7	5.1	38
Volatile Organic Compounds (mg/L)											
Benzene		<0.001 UJ					<0.001	<0.001	<0.001	<0.001 UJ	<0.001
Ethylbenzene		<0.001 UJ					<0.001	0.002	<0.001	<0.001 UJ	<0.001
Toluene		<0.001 UJ					<0.001	0.005	<0.001	<0.001 UJ	<0.001
Total Xylenes		<0.001 UJ					0.002	0.01	<0.001	<0.001 UJ	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons		<5					<5 UJ	16	<5	<5 UJ	<5 UJ

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Location / Sampling Date	EP-60 5/6/1999	EP-61 2/24/1999	EP-61 5/13/1999	EP-62 2/10/1999	EP-62 5/6/1999	EP-63 2/10/1999	EP-63 5/6/1999	EP-64 2/10/1999	EP-64 5/6/1999	EP-65 2/24/1999	EP-65 5/13/1999
Dissolved Metals (mg/L)											
Arsenic	0.007	0.07	0.01	0.8	0.8	0.03	0.02	0.04	0.04	0.007	0.006
Cadmium	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005
Calcium	551	386	399	197	169	251	253	398	360	330	297
Chromium	<0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.2 J	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	250	164	197	80	82	161	176	130	133	136	149
Potassium	14 J	22	23	55	48 J	45	37 J	30	24 J	24	26
Selenium	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.5	0.5	0.2	1.3
Sodium	1311	1313	1600	660	776	1450	1570	1480	1952	1264	1250
Zinc	0.03	<0.02	<0.02	0.1	0.04	0.04	0.03	0.08	0.04	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	312	608	529	351	439	531	594	226	224	728	716
Chloride	1366 J	688	619	399	431 J	1029	1163 J	684	830 J	565	511
Fluoride	1.7	1.7	1.7	2.9	3.2	2.2	2.2	1.9	1.9	2	1.9
Nitrate + Nitrite	83	91	166	4.8	5.8 J	7.3	6.4 J	86	73	27	24
pH (SU)	7.4	7.6	8	8.5	7.6	7.8	7.6	8.5	7.9	7.7	7.7
Specific Conductivity (umhos/cm)	8670	8320	8240	4500	4420	8440	8300	9520	9280	6980	6740
Sulfate	2802	2761 J	2824	1074	1328	2829	2544	2783	3748	1635 J	2280
Total Dissolved Solids	7149	6893	6722	3379	3220	6515	6237	7962	7607	5630	5324
Total Suspended Solids	11	75	12	17	6.3	20	19	29	22	9.8	10
Volatile Organic Compounds (mg/L)											
Benzene	<0.001			<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001		
Ethylbenzene	0.001			<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001		
Toluene	0.002			<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001		
Total Xylenes	0.007			0.002	0.004 J	<0.001	0.001 J	0.002	0.001		
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	11			<5 UJ	7.5	<5 UJ	5.4	<5 UJ	<5		

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Location / Sampling Date	EP-66 2/10/1999	EP-66 5/6/1999	EP-67 2/10/1999	EP-67 5/7/1999	EP-68 2/18/1999	EP-68 5/10/1999	EP-7 2/3/1999	EP-7 5/5/1999	EP-70 2/10/1999	EP-70 5/7/1999	EP-71 2/10/1999
Dissolved Metals (mg/L)											
Arsenic	9.1	9.9	0.02	0.02	<0.005	<0.005	0.04 J	0.07	0.8	0.8	0.1
Cadmium	0.03	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	0.009	<0.005
Calcium	585	521	492	438	185	193	103	112	309	291	344
Chromium	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	1.4	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	139	141	141	139	86	88	34	39	158	157	172
Potassium	55	43 J	15	33	17	16	<5	7.5	30	50	20
Selenium	0.2	0.2	0.1	0.1	0.2	0.2	<0.005	<0.005	0.2	0.2	0.2
Sodium	1100	1298	390	483	586	580	553	551	790	1009	730
Zinc	0.2	0.09	0.04	0.03 J	0.06	0.03 J	<0.02	0.03	0.2	0.1 J	0.03
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	497	488	256	261	261	268	362	390	282	289	287
Chloride	622	687 J	346	324	436	407 J	320	334	518	546	47
Fluoride	3.3	3.2	0.8	0.8	0.7	0.7	1.8	1.7	1.1	1.1	0.9
Nitrate + Nitrite	34	38	14	15 J	35	42	<0.1	0.4	20	43	34
pH (SU)	8	7.5	7.7	7.3	7.5	7.6	7.9	7.9	7.7	7.5	7.7
Specific Conductivity (umhos/cm)	7720	7620	4340	4440	3840	4030	2960	3110	6080	6230	5940
Sulfate	3054	2864	1343	1959	861	1064	702	829 J	1970	2210	1840
Total Dissolved Solids	6808	6479	3438	3837	2926	2940	1960	2119	4910	4827	5085
Total Suspended Solids	7.9	7.4	13	29	49	38	12	10	1.7	3.5	4.5
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001					<0.001				
Ethylbenzene	<0.001	<0.001					<0.001				
Toluene	<0.001	<0.001					<0.001				
Total Xylenes	0.001	0.001					<0.001				
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5 UJ	<5					<5				

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Location / Sampling Date	EP-73 2/9/1999	EP-73 5/7/1999	EP-75 2/22/1999	EP-75 5/10/1999	EP-76 2/22/1999	EP-76 5/10/1999	EP-77 2/11/1999	EP-77 5/7/1999	EP-78 2/18/1999	EP-78 5/11/1999	EP-79 2/18/1999
Dissolved Metals (mg/L)											
Arsenic	0.04	0.04	17	18	0.8	1.7	6.2	7.6	4.7	5.5	<0.005
Cadmium	0.005	<0.005	0.01	0.009	<0.005	<0.005	0.02	0.01	<0.005	<0.005	<0.005
Calcium	278	264	382	447	169	187	227	200	72	76	48
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.06	0.08	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1 UJ	<0.1	<0.1	1.2	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	0.003	<0.003	0.005	0.004	0.005	0.004	<0.003	<0.003	<0.003
Magnesium	119	122	364	472	94	112	50	50	38	43	53
Potassium	400	365	858	682	135	113	40	55	77	71	12
Selenium	0.9	1	3.8	4	0.2	0.3	0.03	0.02	0.2	0.2	0.09
Sodium	830	977	3962	4325	550	922	850	940	606	600	1016
Zinc	0.07	0.04 J	0.2	0.06 J	0.05	0.06 J	0.03	0.03 J	0.03	0.03	0.04
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	287	293	664	769	478	486	296	333	362	295 J	471
Chloride	434	410	238	277 J	451	455 J	579	370	298	317	397
Fluoride	2.9	2.7	1.7	1.8	2.1	2.1	3.1	3	4	2.6 J	4.6
Nitrate + Nitrite	16	16 J	161	160	0.6 J	4.5	0.6	0.3 J	10	9.8	10
pH (SU)	7.7	7.5	7.3	7.6	7.6	7.6	7.8	7.6	7.9	7.3	7.8
Specific Conductivity (umhos/cm)	6540	6700	18720	19390	5120	5490	5450	5350	3450	3750 J	4650
Sulfate	2155 J	3116	9087	11378	1477	1852	1798	1790	760	1042	1172
Total Dissolved Solids	5245	5284	17691	18775	3717	4026	4029	3880	2315	2549	3360
Total Suspended Solids	10	7.4	46	102	6.2	2.3	256	177	22	14	12
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-79 5/11/1999	EP-80 2/18/1999	EP-80 5/11/1999	EP-81 2/18/1999	EP-81 5/11/1999	EP-82 2/18/1999	EP-82 5/11/1999	EP-83 2/22/1999	EP-83 5/11/1999	EP-84 2/22/1999	EP-84 5/11/1999
Dissolved Metals (mg/L)											
Arsenic	0.03	0.009	0.02	0.2	0.2	0.005	0.01	<0.005	0.005	0.02	0.02
Cadmium	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	0.006
Calcium	54	220	202	164	159	136	144	71	76	212	220
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.01	0.01
Magnesium	71	92	96	84	92	70	86	64	75	103	117
Potassium	10	23	21	17	15	33	33	8.5	13	<5	12
Selenium	0.1	0.05	0.04	0.2	0.2	0.1	0.2	0.04	0.05	0.02	0.02
Sodium	1050	1016	900	364	330	930	850	740	550	345	370
Zinc	0.02	0.05	0.02	0.1	0.07	0.04	0.06	0.04	0.03	0.05	0.04
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	447 J	494	500 J	501	517 J	421	398 J	354	361 J	301	303 J
Chloride	453	373	385	97	79	513	520	347	205	326	329
Fluoride	4.6 J	1.3	1.3 J	1.4	1.3 J	3	3 J	3	3 J	0.7	0.7 J
Nitrate + Nitrite	9.2	9.8	5.6	9.7	9.5	10	10	8.3 J	8.2	9.3 J	9.4
pH (SU)	8.2	7.5	7.9	7.4	7.8	7.6	7.8	7.8	8	7.5	7.9
Specific Conductivity (umhos/cm)	4900 J	5290	5170 J	2550	2530 J	4720	4870 J	3880	3710 J	3070	3030 J
Sulfate	1477	1573	1686	658	823	825	1050	1040	1156	687	838
Total Dissolved Solids	3447	4048	3976	2018	1955	3490	3576	2740	2525	2276	2174
Total Suspended Solids	80	45	20	16	14	22	13	7	9.4	3.1	3.5
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-85 2/18/1999	EP-85 5/11/1999	EP-86 2/18/1999	EP-86 5/11/1999	EP-88 2/11/1999	EP-88 5/7/1999	EP-89 2/10/1999	EP-89 5/7/1999	EP-9 2/8/1999	EP-90 2/11/1999	EP-90 5/10/1999
Dissolved Metals (mg/L)											
Arsenic	2.5	2.9	<0.005	0.007	0.03	0.02	0.007	0.006		0.2	0.1
Cadmium	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	<0.005	<0.005		<0.005	<0.005
Calcium	91	107	40	42	50	57	167	154		132	184
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
Magnesium	42	57	28	33	31	39	67	63		67	100
Potassium	34	34	12	8.8	9	10	19	45		10	13
Selenium	0.2	0.2	0.02	0.03	0.02	0.03	0.02	0.02		0.4	0.9
Sodium	483	540	516	520	1060	1139	330	378		500	665
Zinc	0.03	<0.02	0.05	0.03	0.08	0.04 J	0.04	0.02 J		<0.02	0.04 J
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	366	356 J	355	354 J	655	572	256	264		299	281
Chloride	193	230	250	224	454	426	292	294		321	377 J
Fluoride	3.7	3.4 J	2.8	2.6 J	2.4	2.2	0.8	0.8		0.7	0.6
Nitrate + Nitrite	7.2	6.8	6.2	5.6	0.5	2.3 J	7.6	7.1 J		12	32
pH (SU)	7.6	8	7.9	8.2	8.2	7.9	8	7.8		7.9	7.7
Specific Conductivity (umhos/cm)	2770	3070 J	2600	2570 J	5350	5340	2770	2790		3340	4090
Sulfate	584	949	390	622	1720	1677	686	818		808	1202
Total Dissolved Solids	1998	2061	1759	1689	3822	3800	1978	1941		2434	3026
Total Suspended Solids	7.3	<1	42	12	143	90	7.5	3		260	21
Volatile Organic Compounds (mg/L)											
Benzene									<0.001 UJ		
Ethylbenzene									<0.001 UJ		
Toluene									<0.001 UJ		
Total Xylenes									0.004 J		
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons									<5 UJ		

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Location Sampling Date	EP-100 2/20/2001	EP-100 5/9/2001	EP-101 2/9/2001	EP-101 5/8/2001	EP-102 2/9/2001	EP-102 5/8/2001	EP-103 2/12/2001	EP-103 5/8/2001	EP-104 2/12/2001	EP-104 5/8/2001	EP-105 2/14/2001
Total Metals (mg/L)											
Arsenic	0.02	0.02	6.3	4.7	0.4	0.4	0.02	0.02	0.08	0.08	0.8
Cadmium	0.02	0.03	1.4	1.6	0.1	0.1	<0.005	0.007	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.9	2.3	0.3	0.6	1.4	1	0.1	0.06	0.2	0.6	0.3
Lead	0.004	0.007	0.004	0.005	0.01	0.006	<0.003	<0.003	0.003	0.005	0.008
Selenium	0.6	0.6	2.4	1.7 J	4	5.7 J	0.3	0.3 J	0.1	0.1 J	0.05
Zinc	0.2	0.4	0.3	0.3	0.08	0.1	0.05	0.04	0.04	0.07	0.08
Dissolved Metals (mg/L)											
Calcium	605	664	149	131	79	96	63	69	122	128	139
Magnesium	320	330	51	47	17	20	20	22	76	77	60
Potassium	27	45	52	49	108	108	3.9	5.7	19	23	16
Sodium	1131	1249	1377	1044	277	328	206	219	798	822	548
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	325	334	261	117	305	233	149	132	400	439	312
Chloride	1707	1569	764	650	151	207	171	185	490	557	375
Fluoride	0.9	1	1.3	1.3	1.5	1.4	0.5	0.5	2.1	2	2.7
Nitrate + Nitrite	272	228	82	81	8.6	9.4	4.7	3.7	11	11	5.3
pH (SU)	7.7	7.4	7.6	6.8	7.7	7.3	7.8	8.3	8	8	7.7
Specific Conductivity (umhos/cm)	10660	10160	7420	6340	2300	2480	5620	1510	4570	4560	3940
Sulfate	2885	2879	2476	2340	551	812	371	356	1488	1712	1441
Total Dissolved Solids	8533	8345	5405	4815	1459	1726	965	1007	3195	3266	2842
Total Suspended Solids	76 J	76 J	6.7	14	14	14	1.2	<1	11	24	5.6
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-105 5/9/2001	EP-106 2/12/2001	EP-106 5/9/2001	EP-107 2/12/2001	EP-107 5/8/2001	EP-108 2/15/2001	EP-108 5/14/2001	EP-109 2/15/2001	EP-109 5/14/2001	EP-110 2/8/2001	EP-110 5/7/2001
Total Metals (mg/L)											
Arsenic	0.2	0.02	0.01	0.03	0.03	1.1	1.1	0.01	0.01	0.008	0.007
Cadmium	<0.005	0.02	<0.005	0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.2	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	8.7	1	0.7	<0.1	<0.1	0.5	0.6 J	0.9	0.2 J	0.1	0.1
Lead	0.1	0.006	<0.003	<0.003	<0.003	0.004	0.007	0.005	<0.003	0.004	<0.003
Selenium	0.03 J	0.1	0.1 J	0.5	0.5 J	0.05	0.04	0.08	0.07	0.02	0.02
Zinc	0.4	0.07	0.1	0.07	0.07	0.03	0.03	0.07	0.03	<0.04	0.04
Dissolved Metals (mg/L)											
Calcium	190	230	263	366	353	43	52	86	96	145	157
Magnesium	72	108	119	177	164	41	49	65	75	62	65
Potassium	19	12	17	16	17	5.3	6.5	15	17	17	21
Sodium	566	700	708	725	689	564	626	629	649	377	385
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	227	309	293	183	177	418	384	400	390	278	273
Chloride	458	417	455	819	905	288	381	360	426	336	356
Fluoride	2.7	0.8	0.9	1	1	2.4	2.3	2.3	2.4	0.7	0.8
Nitrate + Nitrite	1.4 J	9	9.9	84	64	7.1	7 J	8	9 J	7.9	7.7
pH (SU)	8	7.6	7.7	7.7	7.7	7.9	8.5	7.7	8.1	7.9	8.2
Specific Conductivity (umhos/cm)	3790	4910	4900	5980	5840	3370	3460	3840	3900	2860	2850
Sulfate	1415	2071	2353	1890	1970	1041	957	1273	1337	871	839
Total Dissolved Solids	2769	3900	3804	4607	4513	2257	2412	2716	2756	1973	1993
Total Suspended Solids	225 J	26	17 J	<1	<1	22	16	26	8.2	7.2	3.1
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-111 2/21/2001	EP-111 5/15/2001	EP-112 2/21/2001	EP-112 5/15/2001	EP-113 2/21/2001	EP-113 5/15/2001	EP-114 5/4/2001	EP-116 2/22/2001	EP-116 5/4/2001	EP-117 2/22/2001	EP-117 5/4/2001
Total Metals (mg/L)											
Arsenic	1	1	0.03	0.01	0.02	0.007	292	6	6.2	6.4	11
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	3	1.6	1.4	1.2	1.7
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.07	0.04	0.06	0.06
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.9	38	30	0.8	4.5
Iron	1.6	1.6	0.2	0.2	0.5	0.5	473	77	72	78	129
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.9	4.2	3.7	4.1	4.5
Selenium	0.01	0.005	0.02	0.01	0.007	<0.005	0.2	0.4	0.3	1.3	1.2
Zinc	<0.05	<0.02	<0.05	0.02	<0.05	<0.02	109	7.4	7.4	1.6	3.2
Dissolved Metals (mg/L)											
Calcium	205	228	226	257	93	107	1280	408	451	476	674
Magnesium	61	71	116	133	40	50	414	106	116	71	104
Potassium	55	76	89	115	32	42	347	67	75	100	146
Sodium	772	915	914	1106	467	577	1133	941	1058	447	540
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	423	293	710	595	420	325	2616	1049	1049	1065	1391
Chloride	645	643	615	506	318	369	821	470	275	379	329
Fluoride	2.6	2.8	1.7	1.8	3.1	3	8.5	4.5	4.2	3.7	3.5
Nitrate + Nitrite	<0.1	0.2	0.1	0.2	0.1	0.2	<0.2	17	16	11	14
pH (SU)	7.6	7.5	7.7	7.5	7.9	7.7	6.5	7.3	7.7	7.8	7.7
Specific Conductivity (umhos/cm)	5630	5400	7300	7200	3480	3420	7690	6230	6210	3920	3740
Sulfate	2304	2395	2761	2300	1220	1293	3190	2114	1130	1431	1317
Total Dissolved Solids	4229	3997	5102	5158	2393	2373	6746	4455	4504	2971	2872
Total Suspended Solids	7.4	3.5	2.8	<1	2.7	<1	13382	2965	2430	5918	7858
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-118 2/22/2001	EP-118 5/4/2001	EP-119 5/15/2001	EP-12 2/26/2001	EP-12 5/17/2001	EP-120 5/7/2001	EP-121 5/7/2001	EP-122 5/14/2001	EP-123 5/8/2001	EP-124 5/16/2001	EP-125 5/7/2001
Total Metals (mg/L)											
Arsenic	1.4	0.5	2	0.9	0.8	0.3	0.6	2.1	1.5	7.1	0.01
Cadmium	0.06	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.02	<0.005
Chromium	0.3	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
Copper	1.2	0.4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.09	<0.03
Iron	784	256	0.3	0.9	1.2	0.2	0.8	1.1 J	1.4	22	1.2
Lead	1.4	0.5	<0.003	0.02 J	0.005	<0.003	0.01	<0.003	0.005	0.2	<0.003
Selenium	0.4	0.3	0.3	0.1	0.07	0.06 J	0.03 J	0.2	0.08	<0.005	0.6 J
Zinc	2.3	0.7	0.02	<0.03	<0.02	0.04	0.05	<0.02	0.03	0.2	0.2
Dissolved Metals (mg/L)											
Calcium	586	243	128	204	281	115	89	109	72	342	436
Magnesium	301	141	51	90	111	81	78	49	33	133	297
Potassium	123	60	61	12	16	29	7.9	41	19	39	67
Sodium	535	675	603	838	925	642	656	470	597	757	1980
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	2086	527	388	1220	695	390	410	378	427	533	891
Chloride	370	396	303	552 J	633	404	380	277	244	559	534
Fluoride	1.6	1.5	3.6	0.9	1.1	2.2	1.8	3.5	2.7	4.5	0.9
Nitrate + Nitrite	17	17	5.3	9.1	9.5	8.5	7.9	6.7 J	6.4	0.3	58
pH (SU)	8	8.7	7.7	7.8	8	8	8.1	8	8.2	7.9	7.5
Specific Conductivity (umhos/cm)	3380	3520	3560	5380	5960	3720	3620	3200	3260	3950	10320
Sulfate	1112	1234	1225	1574	2393	1350	1229	989	983	1139	5134
Total Dissolved Solids	2433	2486	2576	4054	4791	2670	2559	2294	2230	2738	9112
Total Suspended Solids	33309	4441	17	55	55	6.2	35	25	129	851	517
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-126 5/8/2001	EP-127 5/8/2001	EP-128 5/8/2001	EP-129 5/11/2001	EP-13 2/9/2001	EP-13 5/8/2001	EP-14 2/9/2001	EP-14 5/8/2001	EP-15 2/12/2001	EP-15 5/8/2001	EP-20 2/22/2001
Total Metals (mg/L)											
Arsenic	0.02	2.5	0.6	0.01	1.6	25	23	1.4	0.01	0.01	1
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.5	0.5	<0.005	<0.005	0.008	0.09
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.8	1.3	1	8.6	0.1	0.3	0.4	0.1	1.6	2.4	3.4
Lead	0.009	<0.003	0.003	<0.007	0.004	0.006	0.01	0.004	<0.003	0.004	0.006
Selenium	0.9	0.03	<0.005	0.03	0.3 J	4.5 J	4.1	0.3 J	0.3	0.2 J	0.3
Zinc	0.08	0.03	0.03	<0.06	0.04	0.08	0.09	0.05	0.06	0.07	0.07
Dissolved Metals (mg/L)											
Calcium	372	292	116	205	363	325	224	387	184	206	403
Magnesium	160	75	40	109	93	67	50	99	67	72	199
Potassium	39	69	42	15	49	76	46	57	10	13	43
Sodium	948	859	790	491	744	1937	1502	797	712	816	1188
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	293	460	271	464	246	306	378	378	356	344	338
Chloride	599	651	657	525	821	856	475	496	424	492	524
Fluoride	0.9	4.8	1.8	0.7	1	1.3	1.5	1.5	0.9	1	1.8
Nitrate + Nitrite	29	0.4	0.4	13	78	105	25	25	34	30	77
pH (SU)	7.8	7.7	7.4	7.9	7.6	7.5	7.8	7.6	8	7.8	7.5
Specific Conductivity (umhos/cm)	6560	5780	5480	3820	7390	9520	5620	5720	4520	4500	8570
Sulfate	2977	2174	1865	1329	2739	4132	2680	2723	1373	1583	3919
Total Dissolved Solids	5331	4343	3380	2857	5503	7658	4527	4666	3298	3362	7297
Total Suspended Solids	33	13	11	384	11	3.2	1.8	2.6	91	106	185
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-20 5/16/2001	EP-21 2/26/2001	EP-21 5/16/2001	EP-22 2/14/2001	EP-22 5/9/2001	EP-23 2/21/2001	EP-23 5/10/2001	EP-24 2/26/2001	EP-24 5/16/2001	EP-25 2/26/2001	EP-25 5/16/2001
Total Metals (mg/L)											
Arsenic	0.9	0.07	0.06	3.4	3	8.6	5.2	<0.005	0.06	4.8	8
Cadmium	0.09	0.01	<0.005	0.009	0.007	0.02	0.01	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.08	<0.03	0.03	0.04	0.5	0.2	<0.03	<0.03	<0.03	<0.03
Iron	2.8 J	4.9	1.9 J	0.1	0.6	1.4	6.5	0.1	<0.1 UJ	1.1	1.1 J
Lead	0.006	0.03 J	0.006	0.004	0.02	0.2	0.1	0.01 J	<0.003	0.009 J	0.01
Selenium	0.3	0.01	0.01	1.6	1.8	0.01	0.005	<0.005	<0.005	0.09	0.1
Zinc	0.04	0.9	0.3	0.5	0.5	0.3	0.1	<0.02	<0.02	<0.06	<0.02
Dissolved Metals (mg/L)											
Calcium	461	34	19	412	488	68	114	110	103	80	84
Magnesium	233	32	27	201	250	41	69	29	30	22	23
Potassium	54	248	285	107	147	39	51	23	25	154	168
Sodium	1457	739	711	1504	1843	649	663	756	776	895	919
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	311	1818	2040	647	586	609	537	1440	1386	1793	1867
Chloride	612	605 J	782	543	610	481	585	806 J	1005	961 J	1102
Fluoride	2.1	6.4	7	2.4	2.3	3	2.8	2.6	2.6	1.9	1.9
Nitrate + Nitrite	118	0.4 J	0.3	74	115	0.6	0.2	0.4 J	0.6	0.1 J	0.5
pH (SU)	7.3	7.7	7.8	7.7	7.6	8	7.9	7.9	7.5	7.7	7.6
Specific Conductivity (umhos/cm)	8920	5080	4740	9670	10370	5020	5320	4300	4500	5680	5620
Sulfate	4517	231	138	4682	5250	2788	1706	268	204	144	182
Total Dissolved Solids	7798	2874	2756	8216	9125	2964	3238	2740	2760	3395	3315
Total Suspended Solids	107	348	32	2.8	14 J	55	280	42	20	727	164
Volatile Organic Compounds (mg/L)											
Benzene						0.2	0.03				
Ethylbenzene						0.01	0.01				
Toluene						<0.001	0.01				
Total Xylenes						0.001	0.03				
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons						<5	10				

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Location / Sampling Date	EP-26 2/20/2001	EP-26 5/10/2001	EP-29 2/22/2001	EP-29 5/16/2001	EP-35 2/22/2001	EP-35 5/16/2001	EP-4 2/5/2001	EP-4 5/4/2001	EP-43 2/26/2001	EP-43 5/17/2001	EP-49 2/20/2001
Total Metals (mg/L)											
Arsenic	0.3	0.3	0.3	0.3	0.7	0.7	0.07	0.08	0.6	0.8	26
Cadmium	0.2	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.03
Chromium	<0.01	<0.01	0.09	<0.01	0.03	0.04	<0.01	<0.01	<0.01	0.01	0.01
Copper	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.05	0.3	<0.03	<0.03	<0.03
Iron	0.6	0.8	28	<0.1 UJ	6.8	1.9 J	3.3	22	0.4	0.7	9.5
Lead	0.006	0.006	0.02	<0.003	0.03	0.008	0.02	0.1	0.004 J	0.02	0.006
Selenium	1.1	1.1	0.2	0.2	0.9	1	<0.005	<0.005	0.03	0.05	0.1
Zinc	0.7	1	0.05	<0.02	0.05	0.02	0.04 J	0.2	<0.02	0.04	19
Dissolved Metals (mg/L)											
Calcium	200	229	87	49	354	414	92	123	224	130	454
Magnesium	63	74	26	20	122	138	25	34	94	37	125
Potassium	43	63	24	20	16	19	10	18	34	36	217
Sodium	755	782	615	618	843	1053	215	255	1108	683	1343
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	295	298	598	293	756	606	287	325	756	871	717
Chloride	467	583	306	361	523	524	154	203	1647	564	600
Fluoride	1.8	1.8	2.8	2.9	1	1	0.7	0.8	2.1	2.6	6.7
Nitrate + Nitrite	16	28	7.2	8.2	43	61	<0.1	<0.1	0.1 J	1.2	22
pH (SU)	7.8	7.8	7.8	8.1	7.4	7.5	8	8.6	7.5	7.8	7.7
Specific Conductivity (umhos/cm)	4740	4900	3250	3260	6480	6460	1597	1720	7780	3660	9900
Sulfate	1913	1834	956	1044	2565	2895	347	352	1265	557	4451
Total Dissolved Solids	3520	3732	2211	2223	5283	5335	1018	1131	5116	2424	7694
Total Suspended Solids	18 J	23	2144	188	937	96	94	761	31	36	89 J
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001									
Ethylbenzene	<0.001	0.01									
Toluene	<0.001	0.01									
Total Xylenes	<0.001	<0.001									
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5	112									

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Location / Sampling Date	EP-49 5/10/2001	EP-5 2/5/2001	EP-5 5/4/2001	EP-51 2/16/2001	EP-51 5/10/2001	EP-52 2/20/2001	EP-52 5/10/2001	EP-53 2/21/2001	EP-53 5/10/2001	EP-54 2/20/2001	EP-54 5/10/2001
Total Metals (mg/L)											
Arsenic	17	0.06	0.1	0.4	0.3	1.5	1.7	37	32	25	37
Cadmium	0.04	<0.005	0.005	0.03	0.04	0.4	0.5	1	0.5	0.5	0.7
Chromium	<0.02	<0.01	<0.01	1.6	1	0.2	0.3	<0.01	<0.02	<0.01	<0.02
Copper	<0.03	0.08	0.2	0.2	0.2	0.6	0.6	<0.03	0.03	0.2	0.07
Iron	1.6	1.5	1.8	9.8	2.6	5.9	11	3.8	39	2.8	21
Lead	0.003	0.03	0.03	0.02	0.01	1.4	1.6	<0.003	0.02	0.008	0.04
Selenium	0.09	0.01	<0.005	0.2	0.2	0.2	0.2	1.1	0.7	0.1	0.1
Zinc	11	0.04 J	0.06	0.7	0.5	2.2	3.5	3.6	2.2	9.8	10
Dissolved Metals (mg/L)											
Calcium	498	108	118	655	721	429	502	330	336	385	401
Magnesium	143	46	59	470	536	251	311	80	104	181	191
Potassium	269	9.1	15	43	50	15	20	64	67	222	262
Sodium	1394	748	1106	1263	1260	1943	2097	1037	1108	1316	1260
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	766	849	1039	220	215	666	739	403	549	1110	952
Chloride	815	681	1013	2970	3759	1080	1559	518	581	723	970
Fluoride	5.6	2.2	2.7	0.8	0.8	5.8	5.1	5.9	5	9.1	8.8
Nitrate + Nitrite	33	0.2	<0.1	167	170	109	83	58	14	10	16
pH (SU)	7.4	8	8.5	7.5	7.3	7.6	7.3	7.6	7.3	7.6	7.3
Specific Conductivity (umhos/cm)	9820	4830	5240	11900	12220	12090	11720	7430	7090	10000	8620
Sulfate	3964	933	1177	2108	2318	4393	4815	3093	2778	4108	4700
Total Dissolved Solids	7947	3119	3566	8433	9283	10271	10251	5938	5280	7735	6878
Total Suspended Solids	16	18	121	38	28	37 J	28	298	1432	16 J	26
Volatile Organic Compounds (mg/L)											
Benzene				<0.001	<0.001	<0.001	0.001	<0.001	0.003	0.03	0.02
Ethylbenzene				<0.001	<0.001	<0.001	<0.001	<0.001	0.01	<0.001	<0.001
Toluene				<0.001	0.01	<0.001	0.01	<0.001	0.01	<0.001	<0.001
Total Xylenes				<0.001	<0.001	<0.001	<0.001	<0.001	0.03	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons				<5	<5	<5	<5	<5	<5	<5	<5

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Location / Sampling Date	EP-55 2/22/2001	EP-55 5/11/2001	EP-56 2/22/2001	EP-56 5/10/2001	EP-57 2/23/2001	EP-57 5/16/2001	EP-58 2/23/2001	EP-58 5/16/2001	EP-59 2/21/2001	EP-59 5/15/2001	EP-6 2/5/2001
Total Metals (mg/L)											
Arsenic	60	63	2.1	3.1	0.4	0.3	3.2	3.7	2.5	2.2	0.03
Cadmium	0.8	2.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005
Chromium	0.02	<0.02	0.06	0.2	<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01
Copper	0.2	0.2	0.07	0.2	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	50	89	73	235	2.8 J	0.9 J	1.2 J	0.5 J	0.1	<0.1	<0.1
Lead	0.3	0.4	0.04	0.1	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.004
Selenium	0.2	0.4	0.03	0.03	<0.005	<0.005	0.05	0.03	0.3	0.3	0.06
Zinc	77	177	0.2	0.6	<0.03	<0.02	<0.03	<0.02	<0.1	0.1	<0.02 UJ
Dissolved Metals (mg/L)											
Calcium	507	652	329	772	185	209	433	477	194	164	82
Magnesium	238	290	50	107	127	141	196	215	101	88	30
Potassium	132	184	31	55	17	20	193	244	94	93	9.7
Sodium	994	1266	636	647	705	782	1483	1645	900	846	562
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	1122	1086	1110	2140	1854	1781	1274	1244	537	454	476
Chloride	602	1085	338	477	401	600	852	1020	671	577	272
Fluoride	14	13	2.9	3.1	0.9	1	5	4.9	4.8	5.1	2.6
Nitrate + Nitrite	0.1	0.3	0.6	1	0.1	1.6	<0.1	0.3	5.1	5.2	0.6
pH (SU)	6.9	7.3	7.8	7.8	7.8	7.5	7.7	7.2	7.5	7.7	8
Specific Conductivity (umhos/cm)	9110	9520	3890	3790	4860	5160	11300	11080	5660	5060	3170
Sulfate	3638	3543	1206	1061	965	1348	5454	5489	2060	2030	900
Total Dissolved Solids	7272	7696	2735	2669	3503	3711	8828	8775	4282	3834	2080
Total Suspended Solids	2125	178	3528	12775	52	27	6.2	5.5	7.2	<1	9.9
Volatile Organic Compounds (mg/L)											
Benzene	0.06	0.2	<0.001	0.001					<0.001	<0.001	
Ethylbenzene	<0.01	<0.05	<0.001	0.01					<0.001	<0.001	
Toluene	<0.01	<0.05	<0.001	0.01					<0.001	<0.001	
Total Xylenes	<0.01	<0.05	<0.001	0.03					<0.001	<0.001	
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5	108	<5	<5					<5	<5	

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Location / Sampling Date	EP-6 5/4/2001	EP-60 2/21/2001	EP-60 5/15/2001	EP-61 2/23/2001	EP-61 5/16/2001	EP-62 2/21/2001	EP-62 5/15/2001	EP-63 2/21/2001	EP-63 5/15/2001	EP-64 2/21/2001	EP-64 5/15/2001
Total Metals (mg/L)											
Arsenic	0.03	0.02	0.01	0.01	0.02	1.1	1.3	0.04	0.03	0.1	0.06
Cadmium	0.007	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	0.009	<0.005
Chromium	<0.01	0.3	0.3	<0.01	<0.01	<0.01	<0.01	0.06	0.2	0.02	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	0.04	<0.03	<0.03
Iron	0.2	1.8	2	0.4 J	0.5 J	0.3	<0.1	2.6	3.6	1.5	0.2
Lead	0.01	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.03	0.03	0.004	<0.003
Selenium	0.07	0.2	0.2	0.3	0.3	0.3	0.3	0.08	0.1	0.5	0.5
Zinc	0.03	<0.08	0.06	<0.04	<0.02	<0.1	0.06	<0.2	0.09	<0.09	0.06
Dissolved Metals (mg/L)											
Calcium	129	490	518	319	341	147	178	186	240	287	371
Magnesium	45	178	204	139	149	59	73	111	146	95	126
Potassium	15	12	15	14	18	39	59	26	36	15	21
Sodium	646	1092	1272	1182	1364	598	771	1041	1332	1390	1937
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	340	344	317	467	520	390	384	658	586	194	203
Chloride	284	1013	1018	727	877	396	502	818	926	707	616
Fluoride	2.2	1.5	1.6	1.6	1.6	2.7	3.1	2	1.9	1.6	1.7
Nitrate + Nitrite	8.4	44	38	120	113	5.1	5.3	0.6	0.3	86	93
pH (SU)	8.6	7.5	7.7	7.7	7.5	7.7	7.6	7.5	7.5	8.1	8.1
Specific Conductivity (umhos/cm)	3620	8090	8120	8150	8000	4060	4400	7140	7110	8610	9220
Sulfate	900	3529	3716	3821	7281	1537	1665	2922	2789	4220	4790
Total Dissolved Solids	2574	6773	6853	6710	6558	2970	3271	5319	5420	7016	7773
Total Suspended Solids	12	12	4.4	59	3	6	3.1	50	49	35	8
Volatile Organic Compounds (mg/L)											
Benzene		<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene		<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene		<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes		<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons		<5	<5			5	<5	<5	<5	16	<5

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Total Metals (mg/L)											
Arsenic	0.006	0.06	7.5	8.8	0.01	0.02	0.008	0.006	0.06	0.08	0.6
Cadmium	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.2 J	<0.1 UJ	0.5	<0.1	0.1	0.1	0.7	0.5	1.5	2.5	<0.1
Lead	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	0.004	<0.003	0.006	<0.003	<0.003
Selenium	0.2	0.2	0.3	0.3	0.1	0.1	0.3 J	0.3	<0.005	<0.005	0.2 J
Zinc	<0.04	<0.02	<0.09	0.02	<0.03	0.06	0.05	0.06	0.05 J	0.03	0.2
Dissolved Metals (mg/L)											
Calcium	256	287	407	526	358	453	305	253	77	90	272
Magnesium	106	112	91	122	107	129	131	105	25	30	141
Potassium	17	21	31	47	9.5	13	14	15	5.5	7.7	16
Sodium	959	1072	881	1269	392	452	752	670	460	488	910
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	617	654	439	415	254	232	249	251	329	275	311
Chloride	501	673	536	575	370	412	694	575	285	303	507
Fluoride	2	1.9	2.6	2.9	0.7	0.7	0.7	0.7	1.5	1.6	1
Nitrate + Nitrite	26	25	31	38	15	15	30	39	<0.1	<0.2	40
pH (SU)	7.8	7.4	7.7	7.8	7.5	8.1	7.6	8.1	8	8.7	7.8
Specific Conductivity (umhos/cm)	6430	6290	6650	6900	4380	4290	5150	4780	2720	2620	6030
Sulfate	3007	2967	3128	3599	2105	2049	1807	1776	722	710	2580
Total Dissolved Solids	5079	5038	5559	5927	3617	3733	3954	3640	1753	1767	4824
Total Suspended Solids	14	6.7	11	4	3.8	4.3	25	21	6.8	23	1.9
Volatile Organic Compounds (mg/L)											
Benzene			<0.001	<0.001							
Ethylbenzene			<0.001	<0.001							
Toluene			<0.001	<0.001							
Total Xylenes			<0.001	<0.001							
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons			<5	<5							

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Location / Sampling Date	EP-70 5/7/2001	EP-71 2/9/2001	EP-71 5/7/2001	EP-72 2/9/2001	EP-72 5/7/2001	EP-73 2/16/2001	EP-73 5/9/2001	EP-75 2/14/2001	EP-75 5/9/2001	EP-76 2/14/2001	EP-76 5/9/2001
Total Metals (mg/L)											
Arsenic	0.6	0.09	0.1	0.1	0.09	0.03	0.03	13	14	1.5	1.3
Cadmium	0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	0.007	0.006	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	0.03	0.03	<0.03	<0.03
Iron	<0.1	<0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	0.2	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	0.003	0.003	0.01	0.006
Selenium	0.2	0.2 J	0.2	4.1	9.4	1	0.9	4.4	4.7	0.2	0.2
Zinc	0.2	0.02	0.04	0.1	0.1	<0.06	0.08	0.1	0.2	0.1	0.1
Dissolved Metals (mg/L)											
Calcium	292	298	362	232	291	212	229	361	396	134	154
Magnesium	152	139	172	178	337	95	101	344	374	77	90
Potassium	21	14	20	13	20	263	351	587	847	106	121
Sodium	930	761	1045	962	1655	803	861	4119	3711	754	800
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	232	290	298	331	326	281	282	683	439	498	495
Chloride	876	508	597	447	559	375	424	330	227	433	554
Fluoride	1.1	0.8	0.8	1.1	1.2	2.6	2.7	1.8	1.5	2.1	2.1
Nitrate + Nitrite	63	65	76	37	52	21	16	212	215	4.1	4.4
pH (SU)	8.2	7.6	8.2	7.6	8.6	7.9	7.7	7.7	7.1	7.9	8.1
Specific Conductivity (umhos/cm)	6460	5860	6280	6330	8520	6180	6080	19010	17560	5540	5280
Sulfate	2759	2429	2806	2966	4662	2905	2938	10383	11056	1914	2070
Total Dissolved Solids	5071	4778	5122	5239	7586	4845	4702	17974	16405	3627	3909
Total Suspended Solids	4.8	2.1	1.5	2.5	2.9	11	7.4 J	24	20 J	6	2.3 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-77 2/12/2001	EP-77 5/9/2001	EP-78 2/15/2001	EP-78 5/14/2001	EP-79 2/15/2001	EP-79 5/14/2001	EP-80 2/16/2001	EP-80 5/14/2001	EP-81 2/16/2001	EP-81 5/14/2001	EP-82 2/15/2001
Total Metals (mg/L)											
Arsenic	3.3	1.5	3.7	3.9	0.01	0.008	0.03	0.02	0.5	0.3	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	3.8	6.6	0.1	0.9 J	<0.1	3.2	0.5	0.8 J	0.6	0.6 J	0.1
Lead	0.007	0.008	<0.003	0.01	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003
Selenium	0.01	0.01 J	0.2	0.2	0.1	0.09	0.02	0.007	0.3	0.3	0.1
Zinc	0.05	0.07	0.05	0.06	0.04	<0.02	<0.08	0.03	<0.1	0.05	0.03
Dissolved Metals (mg/L)											
Calcium	124	152	72	85	40	88	194	166	147	157	143
Magnesium	36	45	34	40	48	71	83	74	71	80	82
Potassium	15	18	48	52	7.1	9.2	15	18	16	15	23
Sodium	729	684	499	575	790	883	877	887	318	308	569
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	586	427	415	281	459	458	512	531	478	476	410
Chloride	449	426	287	357	378	636	387	510	107	125	396
Fluoride	2.1	2.5	3.4	3	4.8	4.6	1.2	1.2	1.7	1.6	2.2
Nitrate + Nitrite	0.7	1.1 J	8.6	12 J	11	11 J	1.2	1.4 J	10	11 J	6.9
pH (SU)	8	8.2	7	7.7	7.8	8.1	8.1	7.9	8	7.8	7.4
Specific Conductivity (umhos/cm)	4140	4000	3340	3700	4400	4780	5300	5200	2780	2720	3800
Sulfate	1334	1483	1015	1232	1412	1159	2251	1734	1026	986	1176
Total Dissolved Solids	2871	2807	2196	2543	3051	3309	3970	3967	2111	2119	2697
Total Suspended Solids	561	320 J	2.4	19	2	60	18	40	17	17	4.7
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-82 5/14/2001	EP-83 2/14/2001	EP-83 5/11/2001	EP-84 2/14/2001	EP-84 5/11/2001	EP-85 2/16/2001	EP-85 5/14/2001	EP-86 2/15/2001	EP-86 5/14/2001	EP-88 2/14/2001	EP-88 5/9/2001
Total Metals (mg/L)											
Arsenic	0.009	0.005	0.01	0.03	0.04	2.3	2.1	0.009	0.006	0.02	0.03
Cadmium	<0.005	<0.005	<0.005	0.005	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.1 J	<0.1	0.3	<0.1	<0.1	<0.1	0.1 J	0.2	0.7 J	0.9	0.2
Lead	<0.003	<0.003	<0.003	0.03	<0.02	<0.003	0.004	<0.003	0.004	0.004	<0.003
Selenium	0.1	0.04	0.04	0.02	0.02	0.2	0.1	0.03	0.03	0.07	0.05
Zinc	0.02	0.05	<0.03	0.06	<0.07	<0.04	<0.02	0.03	<0.02	0.06	0.07
Dissolved Metals (mg/L)											
Calcium	202	57	70	189	181	85	118	34	47	67	59
Magnesium	114	50	62	92	93	41	58	25	34	45	40
Potassium	27	7.8	8.9	7	6.6	26	29	7.2	8.9	6.3	8.6
Sodium	700	592	664	318	307	411	487	408	469	875	1042
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	395	384	417	317	299	356	366	346	351	542	594
Chloride	609	322	414	199	441	191	323	256	304	345	439
Fluoride	2.3	3	2.9	0.7	0.7	3.3	3	2.6	2.6	2	2.1
Nitrate + Nitrite	9.8 J	9.3	9.7	10	12	7.5	8.8 J	6.7	6.3 J	5.4	3.5
pH (SU)	8	7.8	8	7.6	8.1	8	7.9	7.9	8.1	7.8	8.2
Specific Conductivity (umhos/cm)	4610	3800	3700	3000	3020	2760	3180	2610	2650	4900	5080
Sulfate	1563	1233	1145	961	967	849	1280	665	680	1778	1919
Total Dissolved Solids	3449	2564	2596	2192	2271	1926	2259	1658	1767	3406	3575
Total Suspended Solids	7.3	4.4	16	3.8	<1	3	2.8	15	20	33	3 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-89 2/8/2001	EP-89 5/7/2001	EP-90 2/12/2001	EP-90 5/8/2001	EP-93 2/14/2001	EP-93 5/11/2001	EP-94 2/14/2001	EP-94 5/11/2001	EP-95 2/14/2001	EP-95 5/11/2001	EP-96 2/14/2001
Total Metals (mg/L)											
Arsenic	0.005	0.005	0.1	0.1	0.02	0.02	0.01	0.02	0.02	0.01	0.01
Cadmium	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	0.1	1.4	5.4	3.9	5.1	0.2	0.3	<0.1	0.1	1.3
Lead	0.005	0.003	0.006	0.004	0.005	<0.005	<0.003	0.005	<0.003	<0.003	<0.003
Selenium	0.02	0.02	1.4	1.2 J	0.04	0.03	0.03	0.03	0.03	0.03	0.03
Zinc	<0.05	0.04	0.04	0.07	0.07	<0.06	0.05	<0.05	0.03	<0.02	0.1
Dissolved Metals (mg/L)											
Calcium	149	156	256	287	82	93	99	102	34	34	107
Magnesium	61	61	134	145	63	72	98	103	56	58	77
Potassium	16	18	10	16	8.7	9.4	11	12	<2	<5	11
Sodium	364	359	885	996	823	866	761	747	529	531	694
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	282	203	366	406	664	728	569	398	390	371	498
Chloride	316	359	538	544	457	555	571	592	338	399	485
Fluoride	0.7	0.8	0.4	0.5	1.7	1.7	1.3	1.2	3.9	3.8	1.1
Nitrate + Nitrite	9.2	9.1	40	38	7.3	9.7	11	13	8.2	10	13
pH (SU)	7.7	8.2	7.7	7.9	7.8	7.9	7.5	8	7.4	8.3	7.6
Specific Conductivity (umhos/cm)	2900	2880	5660	5840	4680	4560	4720	4660	3120	3140	4600
Sulfate	901	901	2043	2632	1397	1227	1543	1431	825	811	1497
Total Dissolved Solids	2000	2034	4494	4694	3222	3208	3363	3368	2065	2109	3200
Total Suspended Solids	1.2	2.6	44	235	216	188	7.1	8.7	1.4	1.4	103
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-96 5/11/2001	EP-97 2/14/2001	EP-97 5/14/2001	EP-98 2/14/2001	EP-98 5/14/2001	EP-99 2/22/2001
Total Metals (mg/L)						
Arsenic	0.02	0.1	0.2	0.02	0.03	6.5
Cadmium	<0.005	0.01	0.02	<0.005	<0.005	0.007
Chromium	<0.01	<0.01	0.02	<0.01	<0.01	0.02
Copper	<0.03	0.2	0.3	<0.03	0.03	0.4
Iron	1.4	4.3	22	0.3	0.6 J	22
Lead	<0.006	0.2	0.7	0.006	0.01	0.3
Selenium	0.02	0.006	<0.005	0.5	0.7	1.1
Zinc	<0.08	0.2	0.3	0.07	0.07	0.7
Dissolved Metals (mg/L)						
Calcium	131	149	206	72	96	281
Magnesium	98	104	126	66	87	106
Potassium	13	7.1	14	87	149	60
Sodium	828	807	866	1057	1385	646
Water Quality Parameters (mg/L)						
Bicarbonate Alkalinity	471	695	756	439	422	476
Chloride	545	513	607	488	712	324
Fluoride	1.1	1.3	1.5	2.7	3.7	3.4
Nitrate + Nitrite	16	0.4	0.3 J	14	14 J	64
pH (SU)	7.9	7.8	8.1	8	8.4	7.9
Specific Conductivity (umhos/cm)	4680	5260	5140	6230	7080	5110
Sulfate	1329	1560	1610	2063	2669	2232
Total Dissolved Solids	3437	3786	3771	4547	5320	4192
Total Suspended Solids	59	188	1029	12	10	365
Volatile Organic Compounds (mg/L)						
Benzene						
Ethylbenzene						
Toluene						
Total Xylenes						
Petroleum Hydrocarbons (mg/L)						
Total Petroleum Hydrocarbons						

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Location / Sampling Date	EP-100 2/12/2002	EP-100 5/9/2002	EP-101 2/7/2002	EP-101 5/2/2002	EP-102 2/7/2002	EP-102 5/2/2002	EP-103 2/8/2002	EP-103 5/1/2002	EP-104 2/8/2002	EP-104 5/1/2002	EP-105 2/11/2002
Total Metals (mg/L)											
Arsenic	0.03	0.1	5	5.1	0.5	0.4	0.02	0.02	0.09	0.08	0.2
Cadmium	0.02	0.02	1.8	1.2	0.2	0.1	0.01 J	<0.005	0.005 J	<0.005	<0.005
Chromium	0.02 J	0.02	<0.01	<0.01	<0.01	<0.01	<0.01 UJ	<0.01	0.01 J	<0.01	<0.01
Copper	0.03 J	0.05	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1
Iron	2.6 J	1.6	5.7	1.7	1.9	0.9	0.2 J	<0.1	2.8 J	0.2	6.2
Lead	0.007 J	0.007	0.03	0.01	0.01	0.007	<0.003	0.005	0.02	0.004	0.09
Selenium	0.5	0.6 J	1.4	1	8.3	4.7	0.2	0.3	0.1 J	0.2	0.02 J
Zinc	0.2	0.2	0.3 J	0.3	0.04 J	0.08	0.02	0.03	0.05	0.03	0.3
Dissolved Metals (mg/L)											
Arsenic	0.02	0.08	4.9	5.3	0.4	0.3	0.02	0.03	0.09	0.08	0.2
Cadmium	0.02	0.02	1.7	1.2	0.2	0.1	0.01	<0.005	<0.005	<0.005	<0.005
Calcium	662	747	160	150	145	124	147	129	120	121	170
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05
Iron	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	0.008	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	343	376	61	56	35	29	48	41	76	77	74
Potassium	33	35	51	41	112	80	6	6.8	19	19	15
Selenium	0.5	0.6	1.3	1.1	7.9	5.3	0.2	0.3	0.09	0.09	0.02
Sodium	1419	1406	1057	949	425	326	230	241	764	772	556
Zinc	0.2	0.1	0.3	0.2	0.02	0.04	<0.02	<0.02	0.03	<0.02	0.08
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	336	353	270	242	334	217	149	154	448	414	199
Chloride	1378	1844	546	623	238	210	260 J	241	448 J	492	352
Fluoride	1	1	1.2	1.3	1	0.8	0.4	0.5	2.3	2.2	3.2
Nitrate + Nitrite	234	196	54	59	21	25	8.4	27	9.1	8.6	1.1
pH (SU)	7.5	7.9	8.1	7.7	8.3	7.4	8.1	7.6	8.3	7.8	8.2
Specific Conductivity (umhos/cm)	10290	10720	5660	5490	3100	2410	2250	2090	4440	4430	4020
Sulfate	3013	2040	1865	1954	896	682	606	405	1439	1423	1429
Total Dissolved Solids	8606	8655	4177	3926	2269	1677	1515	1426	3092	3159	2888
Total Suspended Solids	95	65	103 J	33	41 J	14	3.9	3.4	233	13	96
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Total Metals (mg/L)											
Arsenic	0.2	0.02	0.02	0.07	0.04	1.1	1	0.01	0.02	0.01	0.01
Cadmium	<0.005	0.02 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01 UJ	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
Copper	0.07	<0.03	<0.03	<0.03	<0.03	0.03	0.07	<0.03	<0.03	<0.03	<0.03
Iron	2.4	<0.1 UJ	0.3	0.1	<0.1	0.2	0.6	<0.1	0.4	0.4	<0.1
Lead	0.03	0.005	<0.003	<0.003	<0.003	0.008	0.008	<0.003	0.005	0.007	0.004 J
Selenium	0.03	0.1 J	0.1	0.4 J	0.4	0.05	0.04	0.05	0.05	0.02	0.02 J
Zinc	0.2	0.02	0.04	0.04	0.04	0.02	<0.04	<0.02	<0.03	<0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic	0.2	0.02	0.02	0.06	0.04	1.1	1.1	0.01	0.02	0.01	0.01
Cadmium	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	173	249	254	383	373	50	46	87	84	165	160
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	77	113	115	186	169	48	45	67	65	69	67
Potassium	16	13	13	20	15	6.6	8.9	17	23	22	22
Selenium	0.03	0.1	0.1	0.5	0.4	0.05	0.04	0.05	0.06	0.02	0.02
Sodium	617	638	684	780	659	606	573	679	640	394	387
Zinc	0.08	0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	214	171	288	183 J	184	410	437	383	405	299	278
Chloride	437	427 J	383	677	749	265	376	363 J	418	332	385
Fluoride	3.1	0.9	0.8	1	1	2.4	2.4	2.4	2.4	0.7	0.7
Nitrate + Nitrite	1.2	9.4	9.6	90	69	7.2	5.4	8.3	7.1	8.3	7.8
pH (SU)	7.9	8.5	7.7	7.7	7.6	8.4	8.2	8.3	8	8.3	8
Specific Conductivity (umhos/cm)	4000	4640	4560	6010	5680	3380	3360	3810	3900	2900	2910
Sulfate	1499	2076	1860	1688	1362	886	957	1256 J	1343	784	791
Total Dissolved Solids	2901	3539	3533	4583	4352	2371	2261	2718	2714	2094	2052
Total Suspended Solids	49	1.8	11	<1	5.8	2.2	15	<1	21	15 J	1.9
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-111 2/20/2002	EP-111 5/11/2002	EP-112 2/20/2002	EP-112 5/11/2002	EP-113 2/20/2002	EP-113 5/11/2002	EP-114 2/5/2002	EP-114 4/29/2002	EP-116 2/20/2002	EP-116 4/29/2002	EP-117 2/5/2002
Total Metals (mg/L)											
Arsenic	1	1.1	0.03	0.02	0.008	0.01	320	290	5.3	11	9.9
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	4	3.7	1.1	3.5	2.2
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	0.2	0.03	0.2	0.1
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.6	0.4	13	58	1.6
Iron	1.5	1.5	0.2	0.1	0.6	0.8	390	398	45	173	177
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.2	0.2	2.3	9.9	10
Selenium	0.009 J	0.03 J	0.02 J	0.04 J	<0.005 UJ	0.005 J	0.2	0.1 J	0.2 J	0.3 J	1.2
Zinc	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	110	118	5.7	15	3.4
Dissolved Metals (mg/L)											
Arsenic	1.1	1	0.03	0.03	0.01	0.01	287	277	3	3.5	6.1
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.08	0.09	0.3	0.3	0.1
Calcium	239	247	245	247	132	137	566	550	233	234	276
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.3	1.1	<0.03
Iron	1.5	1.4	0.1	<0.1	0.4	0.7	45	44	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.02	0.02	0.008
Magnesium	81	79	123	121	62	62	256	250	75	75	41
Potassium	94	82	118	111	46	43	237	260	56	52	101
Selenium	<0.005	0.03	<0.005	0.04	<0.005	0.007	0.1	<0.1 UJ	0.2	0.2 J	1.2
Sodium	1117	953	1017	1110	629	643	1050	964	1001	876	562
Zinc	<0.02	0.04	<0.02	0.02	<0.02	<0.02	6.3	7.5	2.5	1.9	0.06
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	193 J	342	664 J	561	425 J	354	3338	2294	978 J	1562	1830
Chloride	558	534	564	651	322	335	988	913	491	517	465
Fluoride	3	3	2	2.3	3.1	3.3	8.9	8.3	4.4	3.9	3.6
Nitrate + Nitrite	<0.1	<0.05	<0.1	0.2	<0.1	<0.05	<0.1	0.1	12	8.7	14
pH (SU)	8.6	7.3	7.9	7.7	7.9	7.3	7.5	7	8	7.6	8.1
Specific Conductivity (umhos/cm)	5670	5420	6880	6870	3850	3760	7780	7700	5850	5620	4180
Sulfate	1609	1756 J	2402	2292 J	1304	528 J	4218	3405	2339	2134	1197
Total Dissolved Solids	4216	4004	4877	4797	2578	2660	6865	6710	4223	3989	3166
Total Suspended Solids	4.2	5.5	<1	1	2.2	3.2	13452	14761	2194	9078	7525
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-117 4/29/2002	EP-118 2/5/2002	EP-118 4/29/2002	EP-119 2/13/2002	EP-119 5/9/2002	EP-12 2/21/2002	EP-12 5/14/2002	EP-120 2/19/2002	EP-120 5/7/2002	EP-121 2/20/2002	EP-121 5/14/2002
Total Metals (mg/L)											
Arsenic	7.1	0.9	2.8	1.9	2.1	1.2	0.9	0.3	0.3	0.5	0.6
Cadmium	0.9	0.04	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.03	0.3	0.3	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.6	1	1.4	<0.03	0.07	<0.03	<0.03	0.03	0.04	<0.03	<0.03
Iron	68	767	804	1.9	<0.1	2.9 J	1 J	0.3	0.6	0.4	0.5 J
Lead	3.3	0.9	1.9	0.008	0.004	0.01	0.003	0.005	0.009	<0.003	<0.003
Selenium	1.1 J	0.4	1.3 J	0.2	0.2 J	0.1	0.05	0.3	0.07	0.02 J	0.02
Zinc	1.3	2.2	2.7	0.04	<0.02	<0.02	<0.02	0.04	<0.04	<0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic	6.1	0.2	1.4	2.1	2.1	1.3	0.5	0.3	0.3	0.6	0.6
Cadmium	0.09	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	278	124	176	131	143	273	247	108	95	81	88
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.1	<0.1	<0.1	<0.1	<0.1
Lead	0.006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	41	62	43	53	58	100	104	62	54	67	66
Potassium	113	16	25	63	59	16	16	24	27	6.7	7.2
Selenium	1	0.4	1.1	0.2	0.2	0.06	0.05	0.3	0.09	0.002	0.03
Sodium	564	707	426	738	606	914	914	546	440	573	620
Zinc	0.04	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	756	1415	839	405	415	886	1074	420	268	442 J	428
Chloride	477	403	226	260	1346	582	570	247	248	319	354
Fluoride	3.4	1.4	2.2	3.6	3.5	1.2	1	2.4	2.3	1.9	1.8
Nitrate + Nitrite	13	14	14	2.2	3.4	15	8.4	6.3	5.4	8.6	0.6
pH (SU)	7.4	8.3	7.8	8.2	7.6	7.8	7.9	8.5	8.1	8.2	7.9
Specific Conductivity (umhos/cm)	4210	3800	2900	3630	3700	5630	5330	3430	2980	3250	3300
Sulfate	1446	1146	1076	1073	910	1894	1471 J	992	960	873	931 J
Total Dissolved Solids	3206	2741	2140	2624	2649	4399	3863	2504	2051	2267	2243
Total Suspended Solids	3500	16283	9775	94	4.2	324	289	15	22	202	51
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-122 2/19/2002	EP-122 5/11/2002	EP-123 2/15/2002	EP-123 5/7/2002	EP-124 2/21/2002	EP-124 5/11/2002	EP-125 2/11/2002	EP-125 5/7/2002	EP-126 2/12/2002	EP-126 5/7/2002	EP-127 2/20/2002
Total Metals (mg/L)											
Arsenic	2.2	2.5	1.6	1.5	12	11	0.04	0.04	0.07	0.04	2
Cadmium	<0.005	0.007	<0.005	<0.005	0.02	0.007	<0.005	<0.005	<0.005	0.009	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	0.02	0.01	0.05 J	0.1	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	0.1	0.07	0.03	0.05	<0.03 UJ	<0.03	<0.03
Iron	<0.1	0.1	<0.1	0.2	15	5.4	20	15	0.2 J	0.3	0.7
Lead	<0.003	<0.003	<0.003	<0.003	0.2	0.07	0.04	0.03	<0.003 UJ	<0.003	<0.003
Selenium	0.2	0.2	0.07	0.06	0.02	<0.005 UJ	0.2 J	0.2	1	0.9	0.01 J
Zinc	0.04	0.03	<0.02	<0.02	1.7	0.1	2.6	3.1	0.06	<0.04	<0.02
Dissolved Metals (mg/L)											
Arsenic	2.1	2.3	1.6	1.6	11	11	0.04	0.03	0.07	0.05	2
Cadmium	<0.005	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005
Calcium	111	116	62	59	86	103	407	402	388	362	333
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.1	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5
Lead	<0.003	<0.003	<0.003	<0.003	0.005	0.005	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	51	53	34	33	38	42	263	251	176	174	86
Potassium	41	43	15	21	33	32	45	58	38	41	78
Selenium	0.2	0.2	0.07	0.07	0.01	<0.005	0.2	0.2	1	1	<0.005
Sodium	524	547	644	628	875	897	1831	1759	930	777	1052
Zinc	<0.02	0.03	<0.02	<0.02	0.04	0.04	2.7	3	0.05	<0.02	0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	346	405	376	421	426	429	1562	1488	256	266	224 J
Chloride	244	263	355 J	331	526	483	279	262	474 J	558	476
Fluoride	3.7	3.7	2.6	2.7	6.1	5.6	2.5	1.9	0.9	1	4.6
Nitrate + Nitrite	6	4	6.4	5.3	<0.1	9.5 J	13	11	28 J	8.4	<0.1
pH (SU)	8.6	8	8.5	7.8	8	7.6	7.8	7.8	7.9	7.8	8.6
Specific Conductivity (umhos/cm)	3210	3270	3480	3410	4490	4500	9740	10030	6070	6130	6540
Sulfate	837	786 J	1010 J	995	1397	1193 J	5468	5002	2596	3023	2419
Total Dissolved Solids	2284	2258	2466	2338	3245	3073	8593	8769	5009	5035	5018
Total Suspended Solids	2.8	5.4	5.8	14	130	422	1363	1561	8.3	3.9	3.2
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-127 5/11/2002	EP-128 2/20/2002	EP-128 5/11/2002	EP-129 2/14/2002	EP-129 5/8/2002	EP-13 2/7/2002	EP-13 5/2/2002	EP-130 2/11/2002	EP-130 5/2/2002	EP-131 2/11/2002	EP-131 5/2/2002
Total Metals (mg/L)											
Arsenic	2.3	0.6	0.8	0.01	0.01	23	22	0.3	0.4	1.1	1.2
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.5	0.4	0.005	0.01	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.8	0.7	1.1	0.6	2	0.3	<0.1	1.3	1.2	2.4	0.9
Lead	0.003	<0.003	<0.003	<0.003	0.004	0.006	0.009	0.007	0.008	0.01	0.007
Selenium	0.04 J	0.007 J	0.03 J	0.03 J	0.03	4.1	3.3	0.3 J	0.3	0.1 J	0.1
Zinc	0.04	<0.02	0.03	0.02	0.02	<0.02	0.05	0.04	0.05	0.03	<0.02
Dissolved Metals (mg/L)											
Arsenic	2.1	0.6	0.7	0.01 J	0.009	26	25	0.3	0.4	1.2	1.2
Cadmium	<0.005	0.006	<0.005	<0.005	<0.005	0.5	0.5	0.006	0.01	<0.005	<0.005
Calcium	374	141	151	181	178	302	316	745	789	176	181
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.6	0.5	0.8	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.008	<0.003	<0.003	<0.003	<0.003
Magnesium	95	52	52	110	107	60	70	377	384	59	59
Potassium	91	47	46	11	10	75	53	34	34	20	22
Selenium	0.03	<0.005	0.02	0.03	0.04	4	3.9	0.2	0.3	0.09	0.1
Sodium	1172	997	1050	629	523	1933	1672	1412	1434	742	795
Zinc	0.05	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	0.04	0.04	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	437	386 J	309	346	415 J	310	295	737	742	390	398
Chloride	662	634	701	346	484	723	747	1419	1356	465	446
Fluoride	4.6	1.7	1.7	0.7	0.7	1.2	1.2	0.7	0.7	2.5	2.5
Nitrate + Nitrite	<0.05	0.1	0.1	11	10	99	102	243	301	21	8.4
pH (SU)	7.6	8.2	7.4	8.4	7.8	8	7.7	8.2	7.4	8.3	7.9
Specific Conductivity (umhos/cm)	6600	6180	6270	3740	3730	8920	8800	10900	10890	4550	4560
Sulfate	2474	1799	1704 J	1005	1335	2994	3156	3162	2695	1561	1581
Total Dissolved Solids	4991	3931	3889	2798	2698	7360	6978	8945	9014	3278	3329
Total Suspended Solids	5.5	3	7.8	18	83	7.2 J	4.8	40	57	103	35
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-132 2/19/2002	EP-132 5/9/2002	EP-14 2/7/2002	EP-14 5/2/2002	EP-15 2/8/2002	EP-15 5/1/2002	EP-20 2/5/2002	EP-20 4/29/2002	EP-21 2/21/2002	EP-21 5/14/2002	EP-22 2/12/2002
Total Metals (mg/L)											
Arsenic	1.8	2	1.6	1.4	0.02	0.01	1.4	1.4	0.03	0.06	3.8
Cadmium	<0.005	<0.005	<0.005	<0.005	0.02 J	<0.005	0.1	0.2	<0.005	0.1	0.005
Chromium	<0.01	0.02	<0.01	<0.01	<0.01 UJ	<0.01	<0.01	<0.01	<0.01	0.03	<0.01 UJ
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1	0.09 J
Iron	1.1	1	<0.1	0.1	1.6 J	1.7	1.7 J	4.4	1.3 J	71	0.8 J
Lead	<0.003	0.005	0.003	0.004	<0.003	0.004	0.004	0.009	0.005	<0.003	0.03 J
Selenium	0.2	0.2 J	0.3	0.2	0.2 J	0.2	0.3	0.3 J	0.04	0.01	0.9
Zinc	<0.02	<0.02	<0.02	0.03	0.02	0.04	<0.07	0.06	0.3	10	0.6
Dissolved Metals (mg/L)											
Arsenic	1.8	2	1.7	1.4	0.02	0.01	1.4	1.4	0.01	0.009	3.9
Cadmium	<0.005	<0.005	<0.005	<0.005	0.02	<0.005	0.1	0.2	<0.005	<0.005	<0.005
Calcium	224	224	351	333	175	180	463	438	45	36	480
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.07
Iron	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.3	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	47	50	90	86	67	68	199	189	38	36	258
Potassium	47	47	61	47	12	12	55	57	257	290	151
Selenium	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3 J	0.04	0.01	1
Sodium	621	638	822	771	702	753	1279	1172	839	811	2014
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	0.02	0.02	<0.02	0.6
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	356	309	390	403	394	389	343	322	1989	1952	665
Chloride	381	303	565	489	413 J	449	520	615	734	795	507 J
Fluoride	3.8	4.6	1.5	1.5	1.1	1.1	2	2.3	4.3	4.8	2.3
Nitrate + Nitrite	12	12	21	23	22	23	83	75	0.2	0.5	97 J
pH (SU)	8.3	7.9	7.9	7.6	8.1	8.1	7.7	7.5	7.9	8.1	7.8
Specific Conductivity (umhos/cm)	4060	4050	5150	5080	4350	4320	7940	7990	5450	5200	10640
Sulfate	1343	994	1960	2092	1551	1506	3335	3383	269	139 J	5620
Total Dissolved Solids	3087	2982	4199	3884	3101	3199	6679	6691	3065	3175	9706
Total Suspended Solids	30	31	2.8 J	3.7	296	263	131	233	2121	3785	51
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

Table I-2
Groundwater Sampling Results (ASARCO): February 2002 - May 2002

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Location / Sampling Date	EP-22 5/7/2002	EP-23 2/21/2002	EP-23 5/10/2002	EP-24 2/21/2002	EP-24 5/10/2002	EP-25 2/21/2002	EP-25 5/14/2002	EP-26 2/13/2002	EP-26 5/9/2002	EP-29 2/5/2002	EP-29 4/29/2002
Total Metals (mg/L)											
Arsenic	4	0.7	1.4	0.04	0.7	38	11	0.3	0.3	0.4	0.4
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	0.2	0.3	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	0.06
Copper	0.08	0.04	0.09	0.08	<0.03	0.2	<0.03	<0.03	<0.03	0.05	0.04
Iron	0.5	1.3 J	1.5	3.7	1.7	9.9	5.1	0.3	0.6	59	62
Lead	0.01	0.01	0.01	0.02	0.01	0.1	0.005	0.003	0.005	0.04	0.04
Selenium	0.9	0.02	0.02 J	0.03	<0.005 UJ	0.9	0.05	0.9	0.9 J	0.2	0.2 J
Zinc	0.6	<0.03	0.05	<0.04	0.1	0.1	<0.02	0.7	1.1	0.2	0.1
Dissolved Metals (mg/L)											
Arsenic	4.4	0.9	1.2	0.008	0.4	0.2	1.7	0.3	0.3	0.3	0.3
Cadmium	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.2	0.3	<0.005	<0.005
Calcium	472	107	103	81	75	74	83	216	220	57	57
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.08	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	0.5	0.5	<0.1	0.5	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	241	69	67	26	24	25	27	70	71	25	23
Potassium	182	56	54	22	21	160	147	51	63	19	19
Selenium	1	0.02	0.02	0.02	<0.005	0.1	0.05	1.1	1	0.2	0.2 J
Sodium	1669	700	622	763	653	976	1003	841	837	722	653
Zinc	0.6	<0.02	0.04 J	<0.02	0.1	0.02	<0.02	0.6	1	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	620	498	525	1446	1235	1976	1864	305	315	498	781
Chloride	531	468	471	591	493	929	947	509	522	403	384
Fluoride	2.4	2.9	2.7	3.1	3.1	1.9	2.1	1.7	1.9	2.9	2.9
Nitrate + Nitrite	99	<0.1	<0.1	0.1	<0.1	0.1	1.5	17	23	7.8	6.3
pH (SU)	7.8	7.9	7.8	7.8	7.8	7.7	8	8.2	7.8	8.1	7.5
Specific Conductivity (umhos/cm)	10480	5300	4850	3850	3300	5540	5490	4860	4890	3480	3470
Sulfate	5487	1626	1233	160	14	54	32 J	1636	1099	899	993
Total Dissolved Solids	9388	3214	2839	2427	1950	3282	3186	3663	3653	2359	2290
Total Suspended Solids	18	47	26	88	37	789	890	9.6	23	2217	2858
Volatile Organic Compounds (mg/L)											
Benzene			0.01					<0.001	<0.001		
Ethylbenzene			0.006					<0.001	<0.001		
Toluene			<0.001					<0.001	<0.001		
Total Xylenes			<0.001					<0.001	<0.001		
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons			<0.005					<5	<0.005		

Table I-2
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Location / Sampling Date	EP-35 2/5/2002	EP-35 4/29/2002	EP-4 2/6/2002	EP-4 4/29/2002	EP-43 2/21/2002	EP-43 5/14/2002	EP-49 2/20/2002	EP-5 2/6/2002	EP-5 4/29/2002	EP-51 2/12/2002	EP-51 5/9/2002
Total Metals (mg/L)											
Arsenic	0.7	0.8	0.08 J	0.08	0.8	0.2	18	0.06 J	0.1	0.3	0.4
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.07	<0.005	0.006	0.04	0.04
Chromium	0.03	0.2	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	1.3	1.4
Copper	<0.03	0.03	0.05	0.04	<0.03	<0.03	<0.03	0.07	0.1	0.2	0.4
Iron	9.8	3.7	7.2	4.8	0.6 J	0.7 J	0.2	0.6 J	1.9	4 J	4.7
Lead	0.02	0.02	0.04	0.03	0.009	0.009	<0.003	0.01	0.06	0.02 J	0.04
Selenium	0.6	0.6 J	<0.005	<0.005 UJ	0.06	0.01	0.3 J	0.02	0.006 J	0.2	0.2 J
Zinc	<0.07	0.04	0.08 J	0.03	<0.03	0.04	10	0.05 J	0.06	0.5	0.8
Dissolved Metals (mg/L)											
Arsenic	0.5	0.6	0.07	0.07	0.7	0.2	19	0.07	0.1	0.1	0.2
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.07	<0.005	<0.005	0.04	0.05
Calcium	381	397	86	95	174	322	512	103	85	894	875
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.07	0.09	0.1	0.1
Iron	<0.1	<0.1	0.4	0.4	0.1	0.2	0.1	<0.1	<0.1	2.8	0.5
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.005	<0.003	<0.003
Magnesium	147	137	24	26	67	151	146	41	39	760	702
Potassium	19	19	13	12	43	37	273	12	12	45	51
Selenium	0.6	0.6 J	<0.005	<0.005 UJ	0.04	0.01	0.2	0.02	0.006 J	0.2	0.2
Sodium	981	1024	223	234	945	1382	1572	712	721	1559	1568
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	9.8	<0.02	<0.02	0.5	0.6
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	590	634	354	350	883	741	737 J	773	822	245	249
Chloride	689	525	186	159	2286	1650	499	488	531	4186	4166
Fluoride	1.1	1	0.7	0.7	2.2	2.1	5.9	2.4	2.7	0.9	0.9
Nitrate + Nitrite	44	36	<0.1	0.2	0.1	1.2	47	0.1	0.2	130 J	94
pH (SU)	8.3	7.6	8.1	8.2	7.6	8	7.9	8.2	8.1	7.5	7.6
Specific Conductivity (umhos/cm)	6400	6460	1610	1738	6780	8120	9910	3650	3710	15380	15440
Sulfate	2171	2863	312	287	2171	1314 J	4305	610	572	2089	1401
Total Dissolved Solids	5143	5192	1062	1091	4611	5313	8038	2479	2413	11228	10780
Total Suspended Solids	750	187	302 J	336	47	56	<1	45 J	25	35	117
Volatile Organic Compounds (mg/L)											
Benzene										<0.001	<0.001
Ethylbenzene										<0.001	<0.001
Toluene										<0.001	<0.001
Total Xylenes										<0.001	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons										<5	<0.005

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Location / Sampling Date	EP-52 2/12/2002	EP-52 5/9/2002	EP-53 2/13/2002	EP-53 5/10/2002	EP-54 2/13/2002	EP-54 5/10/2002	EP-56 2/13/2002	EP-56 5/9/2002	EP-57 2/21/2002	EP-57 5/14/2002	EP-58 2/21/2002
Total Metals (mg/L)											
Arsenic	0.7	0.8	18	22	27	24	2.7	3	0.2	0.08	3.7
Cadmium	0.4	0.4	0.1	0.06	0.5	0.3	<0.005	0.02	<0.005	<0.005	<0.005
Chromium	0.07 J	0.2	0.01	<0.01	0.02	<0.01	0.07	0.03	<0.01	<0.01	<0.01
Copper	0.4	0.6	0.04	0.04	0.5	0.4	0.03	0.05	<0.03	<0.03	<0.03
Iron	3.2 J	5.6	4.5	1.7	9.6	8.6	55	15	1.7 J	0.9 J	1.9 J
Lead	0.7	0.9	0.006	0.004	0.02	0.01	0.03	0.01	<0.003	<0.003	<0.003
Selenium	0.2	0.2 J	0.6	0.5 J	0.1	0.2 J	0.02	0.05 J	0.03	0.007	0.06
Zinc	3.2	3.5	0.7	0.3	9.3	8.5	0.08	0.1	<0.02	<0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic	0.2	0.1	19	22	21	17	2.7	2.8	0.3	0.09	4.4
Cadmium	0.4	0.4	0.09	0.05	0.4	0.2	<0.005	0.02	<0.005	<0.005	<0.005
Calcium	489	515	154	167	443	475	95	116	182	266	508
Chromium	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.3	0.3	0.03	0.04	0.2	0.06	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.3	0.2	<0.1	0.2	<0.1	1.1	<0.1	<0.1	<0.1	<0.1	1.9
Lead	0.06	0.03	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	313	315	58	64	177	192	26	29	138	183	229
Potassium	20	20	53	59	252	250	17	19	21	24	258
Selenium	0.2	0.2	0.5	0.5	0.1	0.2	0.02	0.04	0.02	0.005	0.06
Sodium	2464	2317	1110	1064	1375	1400	613	651	836	1006	1744
Zinc	3.4	3.4	0.6	0.2	8.3	6.8	<0.02	0.05	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	720	756	422	415	1208	1183	683	400	1693	1581	1183
Chloride	1370	1119	447	469	619	721	385	401	543	539	932
Fluoride	5.8	5.2	4.2	4.6	9.2	10	2.9	3.1	1.1	1	4.8
Nitrate + Nitrite	112 J	90	16	10	11	16	1	20	0.4	0.8	0.1
pH (SU)	7.4	7.9	8.1	7.9	7.5	7.5	8	7.6	8	7.9	8.1
Specific Conductivity (umhos/cm)	12120	11910	6310	6280	8120	8670	3470	3620	5430	5750	10970
Sulfate	4194	4529	2198	2101	2601	2709	932	1624	1258	1587 J	4590
Total Dissolved Solids	9624	10238	4412	4377	6334	6620	2434	2474	4112	4178	8763
Total Suspended Solids	11	19	136	49	26	25	1062	380	30	35	14
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001	0.001	<0.001	0.01	0.006	<0.001	<0.001			
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5	<0.005	<5	<0.005	<5	<0.005	<5	<0.005			

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Location / Sampling Date	EP-58 5/14/2002	EP-59 2/13/2002	EP-59 5/9/2002	EP-6 2/6/2002	EP-6 4/29/2002	EP-60 2/13/2002	EP-60 5/9/2002	EP-61 2/21/2002	EP-61 5/14/2002	EP-62 2/13/2002	EP-62 5/9/2002
Total Metals (mg/L)											
Arsenic	4.5	2	1.9	0.02 J	0.02	0.01	0.02	0.04	0.01	1.2	1.1
Cadmium	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	0.02	0.03	<0.01	<0.01	0.5	0.4	0.1	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.6 J	0.1	<0.3	0.2 J	0.2	3.2	2.9	8.2	0.8 J	0.1	<0.3
Lead	<0.003	<0.003	<0.003	<0.003	0.004	<0.003	<0.003	0.004	<0.003	<0.003	<0.003
Selenium	0.04	0.2	0.2 J	0.05	0.04 J	0.2	0.2 J	0.4	0.3	0.2	0.2 J
Zinc	<0.02	0.08	<0.02	<0.02	<0.02	0.03	0.03	<0.03	<0.02	0.04	<0.02
Dissolved Metals (mg/L)											
Arsenic	4	2.1	2.1	0.02	0.02	0.01	0.02	0.03	0.01	1.3	1.2
Cadmium	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	536	141	141	259	234	500	566	321	326	159	168
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.8	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.3	0.3	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	236	73	72	90	82	192	211	142	146	67	68
Potassium	238	90	80	22	21	16	14	18	16	60	54
Selenium	0.04	0.2	0.2	0.05	0.04 J	0.2	0.3	0.3	0.3	0.3	0.2
Sodium	1688	892	687	998	918	1227	1255	1275	1303	834	689
Zinc	<0.02	0.09	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	0.03	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	1208	470	476	476	461	293	342	488	578	415	393
Chloride	847	402	391	590	509	702	833	623	579	375	387
Fluoride	5.8	4.9	5.1	1.7	1.8	1.6	1.6	1.8	1.8	3.2	3.2
Nitrate + Nitrite	0.5	4	3.9	0.4	0.7	29	20	70	52	5.1	3
pH (SU)	7.3	8.2	7.2	8.3	7.9	8.5	7.8	7.9	7.7	7.9	7.7
Specific Conductivity (umhos/cm)	10970	4360	4270	5480	5370	7850	7820	7390	7140	4190	4090
Sulfate	5181 J	1131	1252	1713	1994	2945	3050	2212	2555 J	1176	1199
Total Dissolved Solids	8422	3280	3128	4166	3996	6655	6628	6012	5700	3110	2986
Total Suspended Solids	71	1.8	3.4	8.7 J	5.2	23	20	16	18	2.2	4.8
Volatile Organic Compounds (mg/L)											
Benzene		<0.001				<0.001	<0.001			<0.001	<0.001
Ethylbenzene		<0.001				<0.001	<0.001			<0.001	<0.001
Toluene		<0.001				<0.001	<0.001			<0.001	<0.001
Total Xylenes		<0.001				<0.001	<0.001			<0.001	<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons		<5				<5	<0.005			<5	<0.005

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Location / Sampling Date	EP-63 2/13/2002	EP-63 5/9/2002	EP-64 2/13/2002	EP-64 5/9/2002	EP-65 2/21/2002	EP-65 5/14/2002	EP-66 2/13/2002	EP-66 5/9/2002	EP-67 2/6/2002	EP-67 4/30/2002	EP-68 2/6/2002
Total Metals (mg/L)											
Arsenic	0.04	0.04	0.1	0.1	0.04	0.008	8.1	6.2	0.02 J	0.03	0.03 J
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.08	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.04	<0.03	0.07	<0.03	<0.03	<0.03	0.1	<0.03	<0.03	<0.03
Iron	0.5	0.9	0.7	<0.4	<0.3 UJ	0.2 J	0.2	0.6	0.8 J	<0.4	0.4 J
Lead	0.007	0.01	<0.003	0.005	<0.003	<0.003	<0.003	0.007	<0.003	<0.003 UJ	<0.003
Selenium	0.08	0.07 J	0.5	0.4 J	0.3	0.2	0.2	0.2 J	0.1	0.07 J	0.3
Zinc	0.04	0.03	0.03	<0.02	<0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic	0.04	0.04	0.09	0.1	0.02	0.007	7.8	5.2	0.02	0.03	0.03
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	213	224	363	333	229	268	416	339	447	438	281
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	131	132	126	117	98	113	103	86	127	128	125
Potassium	35	26	25	16	21	21	40	27	15	14	17
Selenium	0.09	0.07	0.5	0.4	0.3	0.2	0.2	0.2	0.09	0.08	0.3
Sodium	1318	1170	1981	1602	1108	1004	1366	772	438	438	771
Zinc	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	683	666	207	179	598	661	366	415	249	254	256
Chloride	713	754	627	1320	563	490	454	419	339	407	754
Fluoride	2	2.1	1.8	1.7	2.2	2.2	2.8	2.7	0.8	0.7	0.7
Nitrate + Nitrite	0.1	0.3	73	67	17	12	31	26	11	9.5	30
pH (SU)	7.9	7.9	8.3	7.9	7.9	7.9	8.5	7.8	7.6	8.2	7.7
Specific Conductivity (umhos/cm)	6700	6640	9010	8400	5930	5810	7040	6330	4190	4250	5260
Sulfate	1991	2020	3370	6589	2156	2199 J	2498	2273	1712	2030	1691
Total Dissolved Solids	5131	4901	7620	6773	4643	4439	6029	5251	3741	3584	4157
Total Suspended Solids	8.3	13	17	7.6	39	15	4.6	36	30 J	12	13 J
Volatile Organic Compounds (mg/L)											
Benzene	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001			
Ethylbenzene	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001			
Toluene	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001			
Total Xylenes	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001			
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5	<0.005	<5	<0.005			<5	<0.005			

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Location / Sampling Date	EP-68 5/1/2002	EP-7 2/6/2002	EP-7 4/29/2002	EP-70 2/7/2002	EP-70 5/1/2002	EP-71 2/7/2002	EP-71 5/1/2002	EP-72 2/7/2002	EP-72 5/1/2002	EP-73 2/12/2002	EP-73 5/7/2002
Total Metals (mg/L)											
Arsenic	0.01	0.06 J	0.07	0.8	0.9	0.1	0.1	0.2	0.2	0.04	0.06
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 UJ	<0.01
Copper	<0.03	<0.03	0.1	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03 UJ	<0.03
Iron	0.3	1.6 J	11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2 J	0.4
Lead	<0.003	<0.003	0.05	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003 UJ	<0.003
Selenium	0.2	<0.005	<0.005 UJ	0.2	0.2	0.3	0.2	7.4	7.2	0.8	0.7
Zinc	<0.02	0.04 J	0.06	0.08 J	0.1	<0.02	0.03	0.04 J	0.06	0.04	<0.02
Dissolved Metals (mg/L)											
Arsenic	0.01	0.05	0.06	0.9	0.9	0.1	0.1	0.2	0.3	0.04	0.06
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	254	70	70	287	302	347	352	280	291	222	208
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	0.7	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	110	22	21	149	158	171	173	306	347	103	95
Potassium	13	8.1	7.2	29	24	21	17	19	16	305	377
Selenium	0.2	<0.005	<0.005 UJ	0.2	0.2	0.2	0.2	7.3	7.9	0.8	0.8
Sodium	642	418	410	1122	1047	1084	959	1478	1551	903	810
Zinc	<0.02	<0.02	<0.02	0.07	0.1	<0.02	<0.02	0.03	0.04	0.04	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	266	337	378	300	314	299	312	376	393	337	336
Chloride	631	252	214	634	493	587	463	492	547	446 J	438
Fluoride	0.7	1.9	1.8	1.2	1.2	0.9	0.9	1.2	1.2	2.8	2.8
Nitrate + Nitrite	32	<0.1	0.2	56	53	60	62	35	35	13 J	14
pH (SU)	8.1	8	7.8	8	7.8	8	7.6	8.3	8	8.1	7.9
Specific Conductivity (umhos/cm)	4940	2310	2340	6500	6500	6380	6300	7900	8780	5860	5900
Sulfate	1654	563	599	2283	2118	2328	1819	3735	4144	2365	1338
Total Dissolved Solids	3754	1565	1556	5192	5027	5226	4966	6878	7767	4585	4510
Total Suspended Solids	15	17 J	115	<1 UJ	<1	1.9 J	5.2	1.2 J	3.7	4.7	10
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-75 2/12/2002	EP-75 5/7/2002	EP-76 2/12/2002	EP-76 5/7/2002	EP-77 2/8/2002	EP-77 5/2/2002	EP-78 2/15/2002	EP-78 5/7/2002	EP-79 2/15/2002	EP-79 5/7/2002	EP-80 2/19/2002
Total Metals (mg/L)											
Arsenic	17	18	0.8	0.5	5.5	5.4	3.6	3	0.02	0.02	0.03
Cadmium	0.006	<0.005	<0.005	<0.005	0.005 J	0.03	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01 UJ	<0.01	<0.01 UJ	<0.01	<0.01 UJ	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.04 J	0.05	<0.03 UJ	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.3 J	0.4	<0.1 UJ	<0.1	1.1 J	1.3	0.2	0.4	0.2	0.9	<0.1
Lead	<0.003 UJ	0.004	0.007 J	0.005	0.007	0.004	0.005	0.009	0.006	0.005	0.006
Selenium	4.3	3.5	0.1	0.08	0.01 J	0.02	0.2	0.2	0.1	0.08	0.02
Zinc	0.1	<0.1	0.06	<0.05	<0.02	0.04	<0.02	<0.03	<0.02	<0.02	<0.02
Dissolved Metals (mg/L)											
Arsenic	17	18	0.8	0.5	5.4	5.4	3.5	3.2	0.01	0.02	0.03
Cadmium	<0.005	<0.005	<0.005	<0.005	0.005	0.03	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	410	343	136	134	117	119	69	65	46	46	222
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.04	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	408	319	83	81	32	33	39	37	53	53	95
Potassium	637	852	89	78	19	20	57	66	8.2	13	17
Selenium	4.2	3.6	0.1	0.09	0.008	0.02	0.2	0.2	0.1	0.1	0.02
Sodium	4447	3458	875	700	705	768	639	578	945	863	909
Zinc	0.09	0.1	0.05	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	639	576	538	539	370	386	416	315	456	498	532
Chloride	251 J	294	473 J	474	379 J	473	359 J	345	465 J	486	386
Fluoride	2.1	2.6	2.2	2.1	3.5	3.5	3	3	4.8	4.9	1.4
Nitrate + Nitrite	192 J	134	4.2 J	4	0.6	0.3	11	8.9	9.9	7.7	2.3
pH (SU)	7.7	7.8	8.1	8.1	8.3	7.8	8.3	7.8	8.3	8.3	8.2
Specific Conductivity (umhos/cm)	19680	17560	4680	4560	4040	4100	3880	3750	4620	4620	5190
Sulfate	10584	11339	1560	3113	1247	1320	1141 J	1249	1224 J	1522	1820
Total Dissolved Solids	19218	16554	3437	3259	2768	2864	2667	2486	3274	3174	4073
Total Suspended Solids	25	20	1.3	2.5	53	89	7.2	16	14	195	2.5
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-80 5/11/2002	EP-81 2/19/2002	EP-81 5/10/2002	EP-82 2/15/2002	EP-82 5/7/2002	EP-83 2/14/2002	EP-83 5/8/2002	EP-84 2/14/2002	EP-84 5/8/2002	EP-85 2/19/2002	EP-85 5/10/2002
Total Metals (mg/L)											
Arsenic	0.03	0.6	0.7	0.01	0.02	0.005	0.02	0.02	0.03	1.5	1.7
Cadmium	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.6	0.7	1.2	<0.1	0.2	<0.1	0.7	<0.1	<0.1	<0.1	<0.1
Lead	0.003	0.004	0.005	<0.003	<0.003	0.02	0.005	0.02	0.03	<0.003	<0.003
Selenium	<0.005 UJ	0.2	0.3	0.1	0.1	0.04	0.04	0.03 J	0.02	0.1	0.1
Zinc	0.07	<0.02	0.2	0.03	<0.02	0.06	<0.02	0.03	0.03	<0.02	0.08
Dissolved Metals (mg/L)											
Arsenic	0.03	0.6	0.6	0.01	0.02	<0.005 UJ	0.01	0.03 J	0.03	1.5	1.7
Cadmium	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	166	142	181	131	123	61	63	181	192	108	126
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.01	0.01	<0.003	<0.003
Magnesium	74	63	83	76	68	58	56	91	94	54	58
Potassium	20	22	24	26	31	11	9.1	6.6	9.3	30	33
Selenium	0.006	0.2	0.3	0.1	0.1	0.04	0.04	0.02 J	0.02	0.1	0.2
Sodium	800	366	418	920	794	924	693	289	317	466	543
Zinc	0.06	<0.02	0.2	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.05 J
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	544	371	427	427	422	403	371 J	312	323 J	371	395
Chloride	436	198	201	573 J	593	386	417	252	362	217	294
Fluoride	1.3	2.3	2.2	2.7	2.8	3	2.9	0.7	0.7	2.8	2.8
Nitrate + Nitrite	<0.05	7.3	6.3	9.3	8.3	8.3	7.9	7.7	7.9	6.6	5.2
pH (SU)	8	8.1	7.6	8.3	8.2	8.3	8	8.2	7.8	8.3	8
Specific Conductivity (umhos/cm)	4610	2670	3010	4940	4750	3840	3640	2700	3040	3640	3300
Sulfate	1473 J	999	773	1574 J	1362	1006	1031	726	984	803	768
Total Dissolved Solids	3364	2001	2202	3589	3374	2639	2425	2002	2201	2129	2274
Total Suspended Solids	30	21	35	<1	13	2.2	32	1.8	4.1	<1	1.7
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-86 2/15/2002	EP-86 5/7/2002	EP-88 2/11/2002	EP-88 5/2/2002	EP-89 2/7/2002	EP-89 4/30/2002	EP-90 2/8/2002	EP-90 5/1/2002	EP-93 2/15/2002	EP-93 5/8/2002	EP-94 2/15/2002
Total Metals (mg/L)											
Arsenic	0.007	0.02	0.04	0.05	0.008	0.01	0.2	0.2	0.02	0.03	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04 J	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03 J	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.1	0.3	0.2	0.6	<0.1	<0.1	4.6 J	2.3	1.3	0.5	<0.1
Lead	0.004	0.003	<0.003	0.006	0.003	0.01 J	0.004	0.008	0.003	0.006	<0.003
Selenium	0.03	0.03	0.06	0.06	0.02	0.02 J	0.5 J	0.4	0.05	0.04	0.03
Zinc	<0.02	<0.02	<0.02	<0.02	0.02 J	<0.02	0.03	0.03	0.03	<0.02	0.02
Dissolved Metals (mg/L)											
Arsenic	0.007	0.02	0.04	0.05	0.008	0.01	0.2	0.2	0.01	0.03	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.03	<0.005	<0.005	<0.005	<0.005
Calcium	39	37	71	71	167	166	166	175	67	66	106
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	0.004	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	30	28	50	48	66	65	92	98	64	63	106
Potassium	8.3	12	6.5	6.8	20	19	9.6	9.8	8.2	8.6	14
Selenium	0.03	0.03	0.06	0.06	0.02	0.02	0.5	0.5	0.04	0.05	0.03
Sodium	495	464	877	959	390	370	770	775	908	939	867
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	354	366	559	610	281	281	395	415	634	708 J	426
Chloride	234 J	260	462	458	376	377	475 J	387	403 J	592	622 J
Fluoride	2.6	2.8	2.1	2.2	0.8	0.7	0.6	0.6	1.7	1.8	1.3
Nitrate + Nitrite	5.7	6	5.3	4.2	9	8.5	13	12	7.9	8.6	11
pH (SU)	8.4	8.2	8.3	7.9	8.1	7.9	8.2	7.5	8.1	8.2	8.1
Specific Conductivity (umhos/cm)	2690	2660	4800	4860	2910	2930	4700	4660	4630	4800	4810
Sulfate	625 J	614	1545	1677	834	855	1781	1360	1319 J	1425	1147 J
Total Dissolved Solids	1800	1680	3336	3501	2092	2070	3400	3477	3252	3260	3427
Total Suspended Solids	5.9	13	8.8	32	1.6 J	1.8	167	90	42	21	<1
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-94 5/8/2002	EP-95 2/14/2002	EP-95 5/8/2002	EP-96 2/15/2002	EP-96 5/8/2002	EP-97 2/14/2002	EP-97 5/8/2002	EP-98 2/14/2002	EP-98 5/8/2002
Total Metals (mg/L)									
Arsenic	0.02	0.01	0.02	0.01	0.02	0.1	0.1	0.02	0.04
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	0.1	<0.03	0.03
Iron	0.1	<0.1	<0.1	0.5	0.3	0.5	1.1	<0.1	0.5
Lead	0.007	<0.003	<0.003	0.005	<0.003	0.04	0.04	<0.003	0.01
Selenium	0.03	0.03 J	0.03	0.03	0.03	<0.005 UJ	0.01	0.2 J	0.3
Zinc	<0.02	0.05	<0.02	0.02	<0.02	0.06	0.06	0.02	0.03
Dissolved Metals (mg/L)									
Arsenic	0.02	0.009 J	0.02	0.01	0.02	0.1	0.1	0.02 J	0.04
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005
Calcium	96	36	35	112	101	97	153	76	77
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	0.08	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	0.01	0.009	<0.003	<0.003
Magnesium	96	63	59	86	79	70	109	77	75
Potassium	14	2.6	4	12	11	5.3	10	102	96
Selenium	0.03	0.03 J	0.03	0.02	0.03	0.005 J	0.01	0.2	0.4
Sodium	813	728	544	820	777	627	833	1287	1151
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	0.03	0.02	<0.02
Water Quality Parameters (mg/L)									
Bicarbonate Alkalinity	425 J	349	395 J	444	464 J	483	634 J	288	447 J
Chloride	604	382	458	472 J	493	356	602	554	590
Fluoride	1.3	3.9	4	1.1	1.1	1.1	1.4	1.9	2.7
Nitrate + Nitrite	12	7.8	8.1	12	10	0.2	0.07	11	11
pH (SU)	8	8.5	8	8.4	7.9	8.1	8.2	8.4	8.2
Specific Conductivity (umhos/cm)	4820	3290	3380	4460	4450	3290	4880	5420	6000
Sulfate	1504	812	971	1424 J	1465	895	1376	1573	2184
Total Dissolved Solids	3363	2187	2230	3177	3030	2330	3545	3946	4283
Total Suspended Solids	6.1	1.9	1.6	24	13	26	35	1.1	23
Volatile Organic Compounds (mg/L)									
Benzene									
Ethylbenzene									
Toluene									
Total Xylenes									
Petroleum Hydrocarbons (mg/L)									
Total Petroleum Hydrocarbons									

Table I-2
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Location / Sampling Date	EP-100 1/26/2000	EP-100 4/28/2000	EP-101 1/25/2000	EP-101 4/26/2000	EP-102 1/25/2000	EP-102 4/26/2000	EP-103 1/24/2000	EP-103 4/26/2000	EP-104 1/24/2000	EP-104 4/26/2000
Total Metals (mg/L)										
Arsenic	0.02	0.02	4.5	6.3	0.2	0.3	0.01	0.02	0.08	0.07
Cadmium	0.04	0.03	0.7	1.1	0.08	0.1	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	7.3	2.1 J	1.6 J	0.6	0.5 J	1.4	0.6	1.3	0.9	2.2
Lead	0.01	0.009	<0.02	0.03	<0.01	0.01	<0.01	0.01	<0.02	0.02
Selenium	0.4	0.5	2.8	3.5	4.8	3.7	0.2	0.2	0.09	0.09
Zinc	0.2	0.2 J	0.05	0.1	0.05	0.07	0.02	0.04	0.02	0.04
Dissolved Metals (mg/L)										
Calcium	658	590	162	186	125	116	56	62	124	146
Magnesium	332	317	54	61	22	25	17	20	72	79
Potassium	41	33	49	55	130	120	5	5.6	21	19
Sodium	1334	1345	1893	1902	359	343	213	198	768	744
Water Quality Parameters (mg/L)										
Bicarbonate Alkalinity	346	344	311	317	337	332	182	189	408	403
Chloride	1746	1742	1463	827	216	213	154	190	498	468
Fluoride	1.2	<1.0	1.5	<1.5	1.9	<1.4	0.7	<0.6	2.1	<2.0
Nitrate + Nitrite	250 J	247	77	90	5.6 J	9	1.1	2.1	10	13
pH (SU)	7.5	7.3	7.8	7.7	7.9	7.7	8.3	7.9	8.1	8.1
Specific Conductivity (umhos/cm)	9870	10340	8680	8770	2870	2790	1498	1540	4640	4620
Sulfate	2545	3084	3062	3608	888	925	312	411	1463	1615
Total Dissolved Solids	7385	8285	6462	6554	1954	1879	928	980	3203	3303
Total Suspended Solids	204	87	21	14	7.4	6.1	7	20	20	78
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons										

Table I-2
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EP-105 1/25/2000	EP-105 4/26/2000	EP-106 1/25/2000	EP-106 4/26/2000	EP-107 1/24/2000	EP-107 4/25/2000	EP-108 1/28/2000	EP-108 5/2/2000	EP-109 1/28/2000	EP-109 5/2/2000	EP-110 1/24/2000	EP-110 4/25/2000	EP-111 1/29/2000
0.4	0.05	0.007	<0.005	0.01	0.02	1.4	1.2	0.01	<0.02	0.009	0.006	0.9
<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
0.08	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
5.7 J	0.6	0.6 J	0.4	<0.1	<0.1	0.5	0.5	1.2	0.8	0.8	0.4	2
0.08	0.01	<0.01	<0.003	<0.009	<0.003	0.006	0.006	0.04	0.006	<0.02	0.008	<0.003
0.03	<0.005	0.1	0.1	0.4	0.4	0.05	0.04	0.06	0.06	<0.02	0.02	<0.005
0.2	0.05	0.02	<0.02	<0.02	0.03	0.03	0.03	0.03	0.03	0.05	0.03	<0.02
147	125	234	252	335	345	51	44	101	95	137	134	237
53	43	109	115	169	162	50	43	74	67	58	58	69
18	17	14	13	16	16	5.5	4.8	15	15	18	17	62
610	588	777	681	757	673	739	595	726	624	400	333	908
268	104	298	307	183	193	411	425	387	384	268	273	373
398	468	423	474	1046	695	361	345	432	385	286	293	509 J
3.1	5.2	0.9	<0.9	0.9	<1.1	2.5	<2.4 UJ	2.5	<2.4 UJ	0.8	<0.8	2.4
2.7 J	0.2	9.2 J	9.4	88	64	6.3 J	6.8	5.8 J	6.5	8.8	7.9	0.3 J
8	8.2	7.7	7.8	7.7	7.6	8.2	7.9	7.9	7.7	7.8	7.7	7.8
3780	3440	4950	4960	6450	5770	3500	3500	4000	3930	2750	2780	5390
1293	1230	1960	2301	1925	2041	1022	999	1297	1219	782	877	1932
2704	2361	3837	3951	4749	4482	2309	1950	2714	2782	1921	1957	3820
246	10	17	18	2.4	3.4	7.7	8.7	30	32	18	17	29

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EP-111 5/2/2000	EP-112 1/29/2000	EP-112 5/2/2000	EP-113 1/29/2000	EP-113 5/2/2000	EP-114 1/31/2000	EP-114 5/4/2000	EP-115 1/31/2000	EP-115 5/4/2000	EP-116 1/31/2000	EP-116 5/4/2000	EP-117 1/31/2000	EP-117 5/4/2000
0.8	0.01	<0.01	<0.005	<0.006	214	203	0.3	0.3	4.9	3.3	11	7.2
<0.005	<0.005	<0.005	<0.005	<0.005	2.7	2.6	0.2	0.2	1.5	0.7	2.7	0.9
<0.01	<0.01	<0.01	<0.01	<0.01	0.2	0.1	<0.01	<0.01	0.04	0.02	0.2	0.06
<0.03	<0.03	<0.03	<0.03	<0.03	11	2.3	0.1	0.2	6.9	1.9	2.1	0.5
1.4	0.5	0.3	1.3	0.8	361	266	0.9	1.5 J	90	32	228	73
0.004	<0.003	0.003	0.003	<0.003	6.6	2.1	0.02	0.08	4.1	1.4	10	3.5
0.01	0.007	0.02	<0.005	0.006	0.1	<0.05	0.4	0.1	0.4	0.3	1.1	1.1
<0.02	<0.02	<0.02	<0.02	<0.02	75	66	0.3	0.3	4.4	2.3	3.4	1.1
197	242	253	151	121	960	845	560	559	531	342	780	405
61	133	141	65	56	355	322	276	270	118	90	122	68
51	101	87	42	36	269	226	102	92	80	60	120	92
749	1067	948	701	594	1244	954	1824	1326	1052	980	371	351
361	671	693	375	405	1708	1501	763	793	1000	795	1903	866
543	551 J	684	364 J	372	930	1000	1502	1455	489	563	245	359
<2.6 UJ	1.4	<1.5 UJ	2.9	<3 UJ	12	11	3.3	<3.2	5.6	5.8	6	4.8
<0.07	0.3 J	<0.05	0.3 J	<0.05	18	<0.08	35	22	<8.9	11	<6	10
7.6	8	7.5	7.6	7.7	6.6	6.6	7.7	8.1	7.6	7.4	7.5	7.7
5100	7520	7280	4180	3890	8480	8000	11440	9850	6480	6400	2640	3120
1749	2846	2732	1399	1271	3440	4487	4112	4346	2202	2350	843	1057
3767	5026	5043	2930	2680	7317	7066	9032	8166	4700	4550	1914	2256
5.4	1.6	1.1	21	6.4	8392	7664	100 J	44 J	1993	1440	11156	4608

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EP-118 1/31/2000	EP-118 5/4/2000	EP-12 2/8/2000	EP-12 5/9/2000	EP-13 1/25/2000	EP-13 4/26/2000	EP-14 1/25/2000	EP-14 4/26/2000	EP-15 1/24/2000	EP-15 4/26/2000	EP-20 1/31/2000	EP-20 5/4/2000	EP-21 2/1/2000
0.4	0.2	2.3	2	34	32	1.5	1.3	0.009	0.007	1	0.8	0.06 J
0.07	0.02	<0.005	<0.005	0.5	0.6	<0.005	<0.005	<0.005	<0.005	0.08	0.07	<0.005
0.3	0.06	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1.2	0.4	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
868	184	1.6	2.8	0.5 J	0.3	0.2 J	0.1	3.6	2.8	1.7	0.5 J	1.8 J
2.5	0.7	0.009	0.02	<0.03	0.008	<0.01	0.005	<0.01	0.004	0.004	<0.003	0.007
0.3	0.3	0.3	0.6	4.5	5.3	0.2	0.2	0.1	0.1	0.3	0.3	0.07
1.7	0.5	<0.02	<0.03 UJ	0.02	0.03	0.01	0.03	<0.02	0.03	0.06	<0.04	0.2
556	175	221	277	256	294	303	349	223	209	456	457	25
325	103	94	112	47	54	78	91	76	73	255	262	36
122	39	11	15	67	64	50	49	13	11	48	44	322
659	503	924	1158	1986	2108	721	704	766	671	1747	1351	714
1293	598	1214	1159	372	390	321	376	366	378	355	354	2135
376	284	439	498	700	659	338	509	387	554	660	626	638 J
1.9	<1.5	0.9	<0.9	1.5	<1.3	1.6	<1.6	0.7	<0.8	1.9	<1.8	6.6
13	13	3.2 J	5.9	96	88	23 J	18	26	21	84	89	1.2 J
8	8.1	7.5	7.5	7.8	7.8	7.5	7.6	7.8	7.7	7.5	7.8	8.1
3080	3200	5520	5620	10170	9150	5130	5080	4560	4560	9530	9260	4880
899	891	1433	1631	3497	4291	2150	2223	1509	1765	4280	4516	104
2146	2126	3880	4147	8099	7339	4011	4008	2916	3342	8062	7998	2942 J
14581	6477	46 J	91	12	6.1	5.9	<1	176	135	104 J	17 J	3499 J

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EP-21 5/8/2000	EP-22 1/26/2000	EP-22 4/28/2000	EP-23 2/1/2000	EP-23 5/3/2000	EP-24 2/1/2000	EP-24 5/8/2000	EP-25 2/8/2000	EP-25 5/8/2000	EP-26 1/26/2000	EP-26 4/28/2000	EP-29 1/31/2000	EP-29 5/4/2000
0.06	1.2	1.2	3.1 J	2.6	0.006 J	0.03	4	15	0.09	0.3	0.3	0.4
<0.005	0.01	0.009	0.006	0.005	<0.005	<0.005	0.006	<0.005	0.3	0.3	<0.005	<0.005
<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.06
0.03	0.04	0.05	0.2	0.1	<0.03	<0.03	0.1	<0.03	0.06	<0.03	<0.03	0.04
1.7	12	3.7 J	<1.1 UJ	0.8	<0.4 UJ	0.1	7.5	2.2	17	1.6 J	10	52
0.01	0.1	0.08	0.08	0.06	0.008	0.003	0.1	0.03	0.1	0.01	0.01	0.03
0.03	0.1	0.2	0.01	0.02	0.006	0.01	0.2	0.4	0.7	1.1	0.2	0.2
0.3 J	0.3	0.4 J	0.1	0.08	<0.02	<0.02	0.1	<0.02 UJ	0.5	0.9 J	0.03	<0.1
27	448	361	106	117	159	150	103	137	231	170	66	169
34	161	157	56	63	40	45	20	30	71	54	21	33
301	113	95	52	50	29	27	214	277	42	50	18	30
942	1262	1398	654	586	940	1062	862	1079	753	749	686	550
1915	476	537	479	477	1301	1301	1586	1818	322	327	292	1186
685	499	649	383 J	488 J	1175 J	1086	775	969	451	436	344	292
7.2	2.2	<2.4	3.3	<2.9 UJ	2.6	<2.4	2.2	<2.2	1.9	<2.0	3	<2.9
0.06	11 J	3.5	<0.2	0.2	<0.2	0.1	<0.4 UJ	0.2	4.9 J	20	<4.3	5.7
8.1	7.9	8	7.8	7.6	7.5	7.6	7.6	7.6	7.9	7.3	8.1	7.9
4960	7500	8290	4770	5230	5120	5080	5200	6060	4440	4540	3190	3150
191	3940	3799	1386	1629	111	199	198	350	1537	1638	897	876
2873	5829	7001	2695	3198	2742	3025	3118	3706	3169	3393	2063	2095
34	438	144	20	24	26	13	460	855	450	44	542	5093
			0.02	0.02					<0.001	<0.001		
			0.01	0.008					<0.001	<0.001		
			<0.001	<0.001					<0.001	<0.001		
			0.007	<0.001					<0.001	<0.001		
			<5	<5					<5	<5		

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EP-35 1/31/2000	EP-35 5/4/2000	EP-4 1/29/2000	EP-4 4/24/2000	EP-43 2/8/2000	EP-49 1/29/2000	EP-49 4/28/2000	EP-5 4/24/2000	EP-51 1/26/2000	EP-51 4/28/2000	EP-52 1/26/2000	EP-52 4/28/2000	EP-53 2/1/2000
0.9	0.5	0.1	0.1	1.3	40	42	0.04	1.2	0.6	1.5	1.5	45
<0.005	<0.005	<0.005	<0.005	<0.005	0.3	0.05	<0.005	0.03	0.03	0.4	0.5	1.2
0.03	0.02	<0.01	<0.01	0.05	0.02	<0.01	<0.01	4.7	1.5	0.04	0.1	<0.01
0.05	<0.03	<0.03	0.1	0.04	0.05	<0.03	0.1	0.2	0.2	0.4	0.6	0.04
9.8	1.5 J	7.5	10	2.4	49	29	0.2	6.2	2.3 J	1.2	2.8 J	13 J
0.03	0.008	0.06	0.08	0.02	0.02	0.007	<0.009	0.05	0.02	0.5	1	0.01
1	1.2	<0.005	<0.005	0.1	0.06	0.1	0.03	0.2	0.3	0.2	0.2	1.1
0.04	<0.02	0.07	0.1	0.03	59	35 J	0.03	0.4	0.5 J	1.7	2.5 J	4
502	430	127	107	144	481	448	167	588	483	536	485	473
160	158	33	30	46	138	128	64	378	324	285	282	101
20	17	15	14	33	267	226	12	39	32	21	19	80
1071	910	332	307	742	1752	1467	856	1028	1106	2209	2166	1337
609	594	338	592	1054	927	978	753	256	238	622	817	354
466	521	308 J	258	478	748	648	729	2154	1820	1429	1425	403 J
1	<1.0	1	<1.0	2.5	6.8	7.3	<2.2	1.2	<1.0	6.3	6.3	5.3
39	59	0.2 J	0.1	<0.6 UJ	6 J	8.8	0.2	169 J	190	114 J	101	113
7.7	7.4	8	8	7.3	7.4	7.2	7.9	7.5	7.6	8.6	7.8	7.6
6660	6710	2310	2300	3900	9960	9860	5250	9820	9660	11940	11860	7520
2414	2715	524	615	449	4359	3921	1288	2147	2356	3910	4361	2786
5452	5606	1470	1531	2540	7543	7808	3659	6849	7123	9533	10140	5620
522	75 J	448	290	230	13	189	13	38	26	12	23	818
								<0.001	<0.001	<0.001	<0.001	<0.001
								<0.001	<0.001	<0.001	<0.001	<0.001
								<0.001	<0.001	<0.001	<0.001	<0.001
								<0.001	<0.001	<0.001	<0.001	<0.001
								<5	<5	<5	<5	<5

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EP-53 4/28/2000	EP-53 5/3/2000	EP-54 1/26/2000	EP-54 4/28/2000	EP-55 2/7/2000	EP-55 5/4/2000	EP-56 2/1/2000	EP-56 5/3/2000	EP-57 2/7/2000	EP-57 5/8/2000	EP-58 2/7/2000	EP-58 5/8/2000	EP-59 1/28/2000
	32	57	42	54	54	2.7 J	1.2	0.4	0.4	3.4	3.6	2.9
	0.4	0.6	0.6	0.2	1.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	<0.01	0.02	<0.01	<0.01	0.03	0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.03
	<0.03	0.4	0.4	0.03	0.3	0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03
	8.8	16	6.9 J	46	67	29 J	32	0.8	1.2	7.6	4.2	0.4
	0.007	0.02	0.01	0.03	0.6	0.02	0.03	0.004	0.006	0.02	0.01	0.003
	0.5	0.1	0.2	0.2	0.3	0.05	0.02	0.02	0.01	0.2	0.07	0.3
	1.1	12	10 J	29	102	0.05	0.06	<0.02	<0.02	0.03	<0.03 UJ	0.04
	278	488	404	494	573	299	266	84	108	502	517	204
	98	239	213	306	324	59	60	100	99	228	230	101
	61	290	249	117	126	30	27	19	19	196	217	95
	1110	1269	1769	1342	1185	993	855	385	518	1801	1800	840
	498	871	966	805	1403	345	466	1469	1503	1313	1322	427
	483 J	625	723	780	831	455 J	506 J	219	198	894	950	522
	6.1 J	7.7	8.6	15	14	2.4	<2.5 UJ	0.9	<0.8	5.3	5.6	4.8
	15	10 J	11	<1.3	<0.05	0.5	0.9	<1.2	0.07	<1.3	0.07	8.6 J
	7.4	7	7.4	6.9	6.5	7.8	8	7.7	7.6	7.2	7	7.9
	7530	7940	10100	10000	9600	5120	4800	3080	3000	11700	11460	5160
	2972	3228	4045	4791	4301	1779	1639	254	228	5590	4587	1874
	5557	5711	7984	8335	7937	3627	3613	2074	1977	9358	8965	3721
	649	31	61	234	5379	849	2654	233	31	424	244	6.7
<0.001		0.01	0.01 J	0.05	0.06 J	<0.001	<0.001					<0.001
<0.001		<0.001	<0.001	<0.001	0.008 J	<0.001	<0.001					<0.001
<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					<0.001
<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					<0.001
<5		<5	<5	<5	<5	<5	<5					<5

Table I-2
Groundwater Sampling Results (ASARCO): January 2000 - May 2000

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

EP-59 5/3/2000	EP-6 1/29/2000	EP-6 4/24/2000	EP-60 1/28/2000	EP-60 5/3/2000	EP-61 2/7/2000	EP-61 5/8/2000	EP-62 1/28/2000	EP-62 5/3/2000	EP-63 1/28/2000	EP-63 5/3/2000	EP-64 1/28/2000	EP-64 5/3/2000
2.4	0.02	0.02	0.008	0.009	0.03	0.01	0.8	0.9	0.02	0.03	0.04	0.05
<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0.02	<0.01	<0.01	0.06	0.4	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
0.3	0.4	<0.1	1.1	1.9	0.3	0.5	0.2	<0.1	<0.1	0.3	0.8	0.1
0.003	0.02	<0.004	<0.003	<0.003	<0.003	0.004	<0.003	0.004	0.003	0.007	0.003	0.005
0.3	0.04	0.05	0.2	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.5	0.5
<0.02	0.03	0.03	<0.02	0.02	<0.02	<0.02 UJ	<0.02	<0.02	<0.02	0.03	<0.02	<0.02
178	408	320	520	493	375	465	192	157	215	220	390	329
89	133	114	205	214	168	194	81	66	128	140	125	116
77	22	20	12	11	16	20	45	38	29	27	19	16
733	1288	1124	1187	1175	1423	1400	786	647	1306	1228	2085	1635
468	477	477	318	321	427	512	483	438	570	590	227	195
492 J	912	852	1047	1127 J	623	811	450	408 J	901	726 J	780	737 J
5.3 J	1.2	<1.4	1.6	<1.6 UJ	1.7	<1.9	2.9	<2.9 UJ	2.1	<2 UJ	1.8	<1.8 UJ
5.8	1.2 J	3.4	41 J	52	93	129	3.8 J	4.6	2.5 J	1.4	86 J	104
7.5	7.9	7.8	7.9	7.5	7.7	7.4	7.1	7.6	7.8	7.5	8.3	8.2
5050	7860	6920	8320	8440	8360	8920	4460	4400	7400	7340	9410	9320
1742	2964	2872	3101	3085	3860	3060	1510	1407	2544	2428	4261	3787
3775	6144	5399	6583	7037	6950	7360	3169	3201	5287	5508	7541	7740
7.7	23	6.4	9.8	6.1	14	104	5.6	2.2	3.4	7.6	15	2.8
<0.001			<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
<0.001			<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
<0.001			<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
<0.001			<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
<5			<5	<5			<5	<5	<5	<5	<5	<5

Table I-2
Groundwater Sampling Results (ASARCO): January 2000 - May 2000

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

EP-65 2/7/2000	EP-65 5/8/2000	EP-66 1/28/2000	EP-66 5/3/2000	EP-67 1/24/2000	EP-67 4/24/2000	EP-68 1/25/2000	EP-68 4/24/2000	EP-7 1/29/2000	EP-7 4/24/2000	EP-70 1/24/2000	EP-70 4/25/2000	EP-71 1/24/2000
0.02	0.01	10	8.8	0.009	0.02	<0.005	0.005	0.1	0.07	0.6	0.6	0.1
<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.007	<0.005
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
0.2	0.1	0.8	0.3	0.1	0.1	2.5 J	0.3	3.5	1.8	<0.1	0.1	<0.1
<0.003	<0.003	0.005	<0.003	<0.01	<0.009	<0.01	<0.003	<0.003	<0.003	<0.01	<0.003	<0.008
0.2	0.2	0.2	0.3	0.1	0.1	0.3	0.3	<0.005	<0.005	0.2	0.2	0.2
<0.02	<0.02	<0.02	0.02	<0.02	0.05	<0.02	0.03	<0.02	0.02	0.1	0.1	<0.02
284	320	553	493	368	367	285	266	123	79	260	276	302
126	133	129	130	112	114	121	119	40	28	134	146	142
17	21	42	38	12	10	16	13	7.2	6.1	18	17	16
1135	1100	1313	1156	432	377	769	714	652	476	954	874	800
703	699	519	493	246	257	234	251	407	388	293	305	284
541	471	685	595 J	405	365	764	615	581 J	343	561	530	503
1.9	<2.2	3	<3 UJ	0.7	<0.8	0.7	<0.7	1.9	<2.1	1	<1.0	0.9
22	25	36 J	30	20	17	24 J	33	0.2 J	0.2	38	45	72
7.6	7.6	7.8	7.6	7.5	7.4	7.8	7.5	7.5	7.9	7.6	7.6	7.6
6520	6480	7860	7510	4380	4370	5800	4920	3840	3110	6110	6110	5950
2395	2628	3514	3225	2036	2063	2051	1860	924	898	2485	3038	2438
5148	5124	6449	6405	3619	3818	4210	3691	2516	2047	4832	4922	4727
16	20	26	7.6	4.8	3.4	58	11	36	23	2.8	7.7	2.2
		<0.001	<0.001									
		<0.001	<0.001									
		<0.001	<0.001									
		<0.001	<0.001									
		<5	<5									

Table I-2
Groundwater Sampling Results (ASARCO): January 2000 - May 2000

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

EP-71 4/24/2000	EP-72 1/24/2000	EP-72 4/25/2000	EP-73 1/26/2000	EP-73 4/28/2000	EP-75 1/26/2000	EP-75 4/28/2000	EP-76 1/26/2000	EP-76 4/28/2000	EP-77 1/25/2000	EP-77 4/28/2000	EP-78 1/28/2000	EP-78 5/2/2000
0.1	0.07	0.07	0.02	0.1	14	16	1.3	0.9	7.7	6.5	4.8	4
<0.005	<0.005	<0.005	<0.005	0.005	<0.005	0.007	<0.005	<0.005	0.01	0.009	<0.005	<0.005
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<0.03	<0.03	<0.03	<0.03	<0.03	0.05	0.07	<0.03	<0.03	<0.03	0.03	<0.03	<0.03
<0.1	0.9	0.3	0.3	0.1 J	1.5	0.9 J	<0.1	<0.1 UJ	0.5 J	4.5 J	0.6	0.2
<0.003	<0.01	0.003	<0.003	<0.003	0.02	0.006	0.01	0.01	<0.01	0.01	0.009	0.004
0.2	1.8	6	0.9	1	3.3	4.8	0.2	0.2	0.02	0.03	0.2	0.2
0.03	0.05	0.06	<0.02	0.1 J	0.08	0.2 J	0.05	0.08 J	<0.02	0.1 J	0.04	0.02
316	250	257	265	239	391	332	164	152	144	136	73	69
150	148	215	116	111	355	337	92	88	36	39	35	35
15	16	14	352	315	604	556	104	75	27	22	54	48
787	900	977	959	925	3938	4204	837	827	820	727	604	587
292	295	349	300	1252	641	715	475	515	329	359	342	390
450	504	554	408	394	164	257	500	510	449	469	301	258
<0.9	1.1	<1.2	2.8	<2.6	1.7	<1.6	2.1	<1.9	3.5	<3.2	3.8	<3.4 UJ
65	34	34	17 J	17	175 J	210	4.2 J	5.7	0.9 J	0.6	11 J	11
7.4	7.9	7.8	7.8	7.6	7.7	7.5	8.3	8	8.2	7.8	7.6	8
5840	5700	7180	6600	6380	18110	19000	5060	5120	4500	4140	3400	3800
2316	2459	3904	2622	2735	9219	11533	1830	1802	1464	1302	998	1106
4802	4539	6065	4896	5088	16215	17965	3613	3827	3152	2936	2144	2577
<1	16	3.1	5.3	7.4	87	32	2.7	5.3	13	157	20	8

Table I-2
Groundwater Sampling Results (ASARCO): January 2000 - May 2000

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

EP-79 1/28/2000	EP-79 5/2/2000	EP-80 1/28/2000	EP-80 5/2/2000	EP-81 1/28/2000	EP-81 5/2/2000	EP-82 1/27/2000	EP-82 5/2/2000	EP-83 1/27/2000	EP-83 5/1/2000	EP-84 1/27/2000	EP-84 5/1/2000	EP-85 1/28/2000
0.006	<0.008	0.02	<0.02	0.6	0.6	0.006	<0.009	0.006	0.008	0.03	0.04	2.3
<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.005	<0.005
0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	<0.03
0.8	0.1	0.4	0.7	2.1	2.3	0.3	<0.1	0.3	0.4	0.5	<0.1	<0.1
0.004	<0.003	0.004	0.006	0.006	0.01	0.004	<0.003	<0.003	<0.003	0.09	<0.02	0.003
0.1	0.1	0.02	0.02	0.3	0.3	0.1	0.1	0.05	0.05	0.02	0.03	0.2
0.02	<0.02	<0.02	0.02	0.03	0.07	<0.02	<0.02	<0.02	<0.02 UJ	0.05	<0.07 UJ	<0.02
55	49	218	177	178	170	136	139	75	66	216	180	96
60	58	86	79	83	82	76	83	65	58	101	91	47
7.6	7.1	15	13	25	25	24	22	9.1	10	7.6	6.6	27
965	864	978	821	459	425	821	756	759	779	338	345	520
406	455	514	533	397	449	445	410	367	378	306	314	399
389	514	372	385	242	204	440	531	396	356 J	367	202 J	219
4.7	4.7 J	1.4	<1.3 UJ	2.7	<2.2 UJ	2.6	<2.7 UJ	3	<3.1	0.7	<0.7	3.3
11 J	10	2.4 J	1.7	6.7 J	7.8	11 J	9.9	9.8 J	7.3	11 J	8.2	6.4 J
8	7.9	8.1	7.8	7.7	7.5	8.1	7.5	8.3	7.9	8	7.6	7.9
4700	4880	5130	5150	3310	3200	4340	4680	3900	3810	3090	3080	3000
1441	1546	1880	1794	1216	1127	1326	1428	1284	1182	1013	970	948
3214	3406	3845	3920	2382	2413	3018	3426	2609	2708	2196	2317	1448
26	8.3	9.8	21	81	79	16	7	16	22	62	3	1.9

Table I-2
Groundwater Sampling Results (ASARCO): January 2000 - May 2000

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

EP-85 5/2/2000	EP-86 1/27/2000	EP-86 5/2/2000	EP-88 1/26/2000	EP-88 4/28/2000	EP-89 1/24/2000	EP-89 4/25/2000	EP-90 1/24/2000	EP-90 4/26/2000	EP-93 1/27/2000	EP-93 5/1/2000	EP-94 1/27/2000	EP-94 5/1/2000
2.2	0.005	<0.008	0.01	0.05	0.007	0.005	0.1	0.1	0.03	0.02	0.01	0.01
<0.005	<0.005	<0.005	<0.005	0.004	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	0.01	<0.01	<0.01
<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	<0.03	<0.03
<0.1	0.7	0.2	0.7	1.8 J	0.1	<0.1	2	3.2	61	3.1	0.5	0.2
<0.003	0.006	0.005	0.004	0.01	<0.02	0.004	<0.01	0.005	0.03	<0.006	0.007	0.03
0.1	0.03	0.03	0.06	0.05	<0.02	0.02	1.2	1.2	0.04	0.04	0.02	0.04
0.02	<0.02	<0.02	0.02	0.07 J	<0.02	0.04	<0.02	0.03	0.1	<0.05 UJ	0.03	<0.03 UJ
94	45	38	74	61	145	149	204	216	418	85	123	99
48	32	28	49	37	59	60	106	113	149	58	111	97
25	8.4	7.6	7.8	6.2	17	16	11	10	24	9.2	14	12
504	517	436	1036	1090	365	330	756	735	1090	718	811	839
348	355	366	522	569	268	273	345	371	1301	544	387	406
282	304	248	493	452	300	304	494	549	670	399 J	668	560 J
<3.1 UJ	2.7	<2.8 UJ	2.1	<2.0	0.8	<0.8	0.5	<0.5	1.7	<1.4	1.3	<1.2
6.6	8.2 J	6.2	3.1 J	1.8	9.2	7.8	33	34	9.5 J	4.9	7.9 J	10
7.2	8.2	8	8.6	7.9	7.9	7.8	7.8	7.8	8.1	7.7	8	7.7
3220	2640	2630	5220	5180	2810	2800	5340	5160	5210	3740	4870	4900
968	600	625	1732	1813	824	886	2045	2024	1455	936	1448	1380
2276	1626	1739	3560	3772	1948	1984	3948	3930	3560	2680	3275	3468
<1	28	10	29	50	3.2	3	236	199	1868	367	14	13

Table I-2
Groundwater Sampling Results (ASARCO): January 2000 - May 2000

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

EP-95 1/27/2000	EP-95 5/1/2000	EP-96 1/27/2000	EP-96 5/1/2000	EP-97 1/27/2000	EP-97 5/1/2000	EP-98 1/27/2000	EP-98 5/1/2000
0.009	0.01	0.007	0.01	0.1	0.1	0.03	0.04
<0.005	<0.005	<0.005	<0.005	0.01	0.008	<0.005	<0.005
<0.01	<0.01	0.02	0.01	<0.01	<0.01	<0.01	<0.01
<0.03	<0.03	<0.03	<0.03	0.2	0.1	0.04	0.03
0.1	<0.1	8.6	7.4	4.7	1.4	3.9	0.4
<0.003	<0.003	0.01	<0.01	0.1	0.05	0.03	<0.003
0.03	0.04	0.02	0.02	0.008	0.02	0.7	1
<0.02	<0.03 UJ	0.04	<0.06 UJ	0.2	<0.1 UJ	0.05	<0.04 UJ
44	37	222	162	187	142	112	79
65	60	116	93	128	109	78	69
<5	2.8	16	13	8.8	8.2	116	148
625	575	934	791	851	941	1715	1802
367	388	647	527	627	644	470	471
332	380 J	493	465 J	609	530 J	559	550 J
3.7	<3.5	1	<1.1	1.1	<1.3	3.4	4.8
9.6 J	7.7	15 J	11	<0.5 UJ	<0.3	18 J	11
8.3	8.3	8	7.8	8.1	7.8	8.1	8
3380	3300	4930	4780	5020	5350	7370	7880
972	806	1577	1361	1679	1345	2867	3432
2187	2229	3450	3514	3584	3928	5153	6035
2.7	2.5	341	438	169	50	162	22

Table I-2
Groundwater Sampling Results (ASARCO): July 2001 - November 2001

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-100 7/20/2001	EP-100 11/5/2001	EP-101 7/18/2001	EP-101 10/31/2001	EP-102 7/18/2001	EP-102 10/31/2001	EP-103 7/19/2001	EP-103 11/1/2001	EP-104 7/18/2001	EP-104 10/31/2001	EP-105 7/19/2001
Total Metals (mg/L)											
Arsenic	0.02	0.03	5.2	5.4	0.3	0.4	0.04	0.06	0.1	0.09	1
Cadmium	0.02	0.01	1.6	1.5	0.2	0.2	<0.005	<0.005	0.01	0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.03	0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.8	1.3	1	3.4	1.2	1.2	<0.1	0.3	0.4	0.1	0.2
Lead	0.003	<0.003	<0.007	0.02	<0.01	0.007	<0.003 UJ	0.007	<0.006	0.006	0.005 J
Selenium	0.6	0.5	1.9	1.5	6.4	6.4	0.3	0.2	0.1	0.09	0.07
Zinc	0.1	0.09	0.3	0.2	0.07	0.05	<0.02	0.02	0.04	0.02	0.07
Dissolved Metals (mg/L)											
Arsenic	0.02	0.03	5.3	5.8	0.3	0.5	0.04	0.06	0.09	0.09	0.9
Cadmium	0.02	0.01	1.5	1.6	0.1	0.2	<0.005	<0.005	0.01	0.005	<0.005
Calcium	677	721	164	177	110	138	72	92	123	133	165
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	364	381	56	62	24	32	23	30	75	84	74
Potassium	36	33	51	57	112	135	4.8	6.8	20	24	18
Selenium	0.5	0.6	1.7	1.5	6.8	6.7	0.3	0.2	0.1	0.1	0.06
Sodium	1379	1386	1248	1233	350	386	221	228	826	831	656
Zinc	0.1	0.1	0.3	0.2	0.05	0.04	<0.02	<0.02	0.03	0.02	0.06
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	322	346	115	183	238	262	139	151	393	417	317
Chloride	1750	1789	703	570	210	242	216	231	584	540	488
Fluoride	1	1	1.3	1.3	1.3	1.2	0.5	0.5	2.1	2.3	2.5
Nitrate + Nitrite	265	283	72	70	10	13	5.6 J	5.8	11	8.7	8.5 J
pH (SU)	7.6	7.6	6.9	7.8	7.2	7.8	8	8	8.1	8.1	8.1
Specific Conductivity (umhos/cm)	10610	10770	6540	6360	2630	2820	1638	1694	4530	4410	4080
Sulfate	2916	2903	2033	2211	811	800	442	394	1645	1228	1390
Total Dissolved Solids	8575	8537	4805	4666	1866	1958	1054	1099	3258	3155	2982
Total Suspended Solids	25	60	76	73	26	21	<1 UJ	4.8 J	8.1	5.9	3.9 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-105 11/1/2001	EP-106 7/18/2001	EP-106 10/31/2001	EP-107 7/17/2001	EP-107 10/31/2001	EP-108 7/25/2001	EP-108 11/12/2001	EP-109 7/25/2001	EP-109 11/12/2001	EP-110 7/17/2001	EP-110 10/30/2001
Total Metals (mg/L)											
Arsenic	0.2	0.05	0.04	0.02	0.06	1.2	1.2	0.03	0.05	0.01	0.01
Cadmium	0.006	0.07	0.02	<0.005	0.04	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.3	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	26	<0.1	0.3	0.3	<0.1	0.5	0.7	0.3	<0.1	0.1	0.2
Lead	0.3	<0.003	<0.003	0.004	0.005	0.003	0.009	<0.003	<0.003	<0.003	<0.003 UJ
Selenium	0.05	0.5	0.1	0.1	0.5	0.05 J	0.06	0.07 J	0.06	0.02	0.02 J
Zinc	0.7	0.06	0.02	0.07	0.03	0.02 J	0.04	0.02 J	<0.02	0.03	0.02
Dissolved Metals (mg/L)											
Arsenic	0.2	0.05	0.04	0.02	0.07	1.2	1.1	0.03	0.04	0.01	0.01
Cadmium	<0.005	0.07	0.02	<0.005	0.04	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 UJ
Calcium	189	391	273	248	430	50	50	88	88	158	165
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	86	174	125	112	196	49	50	69	69	66	70
Potassium	20	17	16	16	20	6.7	9.3	18	22	21	24
Selenium	0.04	0.5	0.1	0.1	0.5	0.05	0.04	0.07	0.05	0.02	0.02
Sodium	702	780	736	745	767	657	645	708	668	377	402
Zinc	0.08	0.05	0.03	0.03	0.03	<0.02	<0.02	<0.02	<0.02	0.03	<0.02 UJ
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	459	181	305	284	195	459	414	387	387	276	235
Chloride	431	931	388	400	892	323	379	366	458	377	391
Fluoride	3	1.1	0.8	0.8	1.1	2.4	2.5	2.4	2.4	0.8	0.8
Nitrate + Nitrite	3.2	68	9.5	11	66	8	7.1	8.5	8.2	8.7	8.7
pH (SU)	8.1	7.8	8.3	7.8	8.1	8	8	7.8	8	8	8.4
Specific Conductivity (umhos/cm)	4040	6070	4590	4610	6030	3410	3420	3890	3860	2900	2960
Sulfate	1423	1983	1794	1802	1782	1043	874	1316	1104	876	884
Total Dissolved Solids	2975	4825	3625	3648	4698	2353	2353	2732	2695	2071	2083
Total Suspended Solids	797	<1	8	9.5 J	1.7	12	13	14	1.3	2.2	2.9 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-111 7/31/2001	EP-111 11/13/2001	EP-112 7/31/2001	EP-112 11/13/2001	EP-113 7/31/2001	EP-113 11/13/2001	EP-114 7/16/2001	EP-114 10/30/2001	EP-115 7/16/2001	EP-116 7/16/2001	EP-116 10/30/2001
Total Metals (mg/L)											
Arsenic	0.9	1.2	0.03	0.04	0.01	0.02	280	323	0.3	11	5.6
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	2.2	1	0.1	3.2	1
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	0.1	<0.01	0.1	0.04
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.9	0.3	0.2	70	20
Iron	1.4	1.4	0.3	0.3	0.8	0.7	325	174	0.7	170	50
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.4	0.2 J	0.08	9.5	2.7 J
Selenium	0.008	0.02	0.02	0.03	0.005	0.007	0.1	0.06 J	0.1	0.4	0.3 J
Zinc	0.03 J	<0.02	<0.02	<0.02	<0.02	<0.02	76	39	0.5 J	15	5.7
Dissolved Metals (mg/L)											
Arsenic	1	1	0.03	0.04	0.01	0.02	227	314	0.3	3.2	3.3
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.1	0.1 J	0.1	0.4	0.2 J
Calcium	220	231	237	231	119	125	535	544	530	254	238
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	1.3	0.6
Iron	1.3	1.3	0.2	0.2	0.7	0.6	47	48	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.03	0.02	0.01
Magnesium	68	72	122	118	55	59	240	245	189	76	77
Potassium	73	87	104	125	42	50	228	229	80	49	49
Selenium	0.01	0.02	0.02	0.03	0.005	0.007	0.06	0.05	0.1	0.3	0.2
Sodium	897	893	1075	1083	599	604	1042	990	1227	970	923
Zinc	<0.02 UJ	<0.02	<0.02	<0.02	<0.02	<0.02	6.9	7.2	0.4	2.6	1.3 J
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	373	378	644	671	350	395	1691	1171	839	1879	769
Chloride	543	646	632	664	342	409	705	1009	503	517	548
Fluoride	2.9	3	1.9	2	3	3.1	8.5	9.2	3.2	4.5	4.5
Nitrate + Nitrite	0.2	0.2	0.2	0.2	0.2	0.2	<0.05	0.4	20	16	18
pH (SU)	7.7	8.2	7.4	8	7.6	7.8	6.6	7	7.9	7.5	8.3
Specific Conductivity (umhos/cm)	5320	5420	6900	6680	3580	3800	7660	7890	7660	5940	5960
Sulfate	1832	1798	2737	2301	1179	1169	2991	3066	3762	1988	2104
Total Dissolved Solids	3796	3967	4878	4700	2464	2680	6831	6919	6595	4296	4254
Total Suspended Solids	5.2	7	<1	1.6	<1	2.3	12441	9594	35	6661	4478 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-117 7/16/2001	EP-117 10/30/2001	EP-118 7/17/2001	EP-118 10/29/2001	EP-119 7/27/2001	EP-119 11/14/2001	EP-12 7/30/2001	EP-12 11/19/2001	EP-120 8/1/2001	EP-120 11/12/2001	EP-121 8/1/2001
Total Metals (mg/L)											
Arsenic	7.4	8.5	0.5	0.2	2.2	2.1	1	1.4	0.4	0.4	0.6
Cadmium	0.7	1.1	0.03	0.009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.03	0.1	0.07	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.4	1.3	0.8	0.2	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	46	124	369	98	<0.1	1.9	2.5	2.5	0.7	1.4	1
Lead	2	6.9	1.1	0.4	<0.003	<0.003	0.01	0.02	<0.003	0.003	<0.003
Selenium	1.3	1.1	0.3	0.3	0.3 J	0.2	0.1	0.1	0.2	0.1	0.03
Zinc	1	2	1.1	0.2	0.05 J	0.02	0.02 J	0.03	0.02	0.03	0.02
Dissolved Metals (mg/L)											
Arsenic	6.6	5.8	0.2	0.2	2.2	2.2	0.7	1.3	0.4	0.4	0.6
Cadmium	0.1	0.1 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	276	282	111	126	129	126	310	241	89	56	81
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	0.5	<0.1	<0.1	<0.1
Lead	0.007	0.009	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	39	41	52	61	52	50	115	102	62	40	64
Potassium	99	107	14	16	57	54	16	14	27	23	11
Selenium	1.3	1.1	0.3	0.3	0.3	0.2	0.03	0.1	0.2	0.1	0.03
Sodium	557	573	644	679	596	586	989	971	599	484	562
Zinc	0.1	0.06 J	<0.02	<0.02	0.05	<0.02	<0.02 UJ	0.03	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	1220	961	1098	427	390	403	793	981	470	453	403
Chloride	414	435	473	443	296	340 J	562	591	252	218	354
Fluoride	3.5	3.4	1.5	1.5	3.6	3.6	1.2	1	2.5	3	1.7
Nitrate + Nitrite	13	15	16	18	3.9 J	2.8	16	12	3.3 J	4.5	6.7 J
pH (SU)	7.3	7.9	8.1	8	7.7	7.9	7.6	8	8	8.2	7.7
Specific Conductivity (umhos/cm)	3950	4140	3670	3880	3510	3540	5810	5220	3420	2770	3300
Sulfate	1360	1545	1299	1248	1166	1034	2085	1479	1043	707	1149
Total Dissolved Solids	2972	3081	2633	2778	2520	2552	4490	3757	2460	1928	2258
Total Suspended Solids	2440	5227 J	10133	4326	1.7	66	154	143	38	160	60
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location Sampling Date	EP-121 11/19/2001	EP-122 7/27/2001	EP-122 11/13/2001	EP-123 7/25/2001	EP-123 11/12/2001	EP-124 7/27/2001	EP-125 7/19/2001	EP-125 11/1/2001	EP-126 7/19/2001	EP-126 11/1/2001	EP-127 7/31/2001
Total Metals (mg/L)											
Arsenic	0.6	2.3	2.3	1.7	1.7	9.8	0.04	0.06	0.04	0.03	2.5
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	0.006	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.09	0.03	0.05	0.08	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.09	0.07	<0.03	<0.03	<0.03
Iron	1.9	<0.1	0.4	0.7	0.1	0.8	81	55	1.1	0.3	1.5
Lead	0.005	<0.003	<0.003	<0.003	<0.003	0.02	0.1	0.2	0.004 J	0.006	<0.003
Selenium	0.03	0.2 J	0.2	0.07 J	0.08	0.005 J	0.2	0.2	1.3	1	0.02
Zinc	0.03	0.08 J	<0.02	<0.02 UJ	<0.02	0.04 J	1.5 J	2.1	0.06 J	0.06	0.03 J
Dissolved Metals (mg/L)											
Arsenic	0.6	2.2	2.4	1.7	1.5	10	0.03	0.04	0.04	0.05	2.5
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	0.006	<0.005
Calcium	82	124	139	50	59	76	420	465	419	454	292
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	0.08	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	1.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	0.008	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	67	57	64	27	32	43	261	283	204	211	77
Potassium	4.2	47	59	15	18	31	60	60	29	43	79
Selenium	0.03	0.2	0.2	0.07	0.06	0.005	0.2	0.2	1.2	1	0.02
Sodium	583	568	574	616	639	834	1976	1949	822	938	1002
Zinc	<0.02	0.08	<0.02	<0.02	<0.02	0.03	0.9	1.9	0.05	0.05	0.02 J
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	415	370	397	338	373	416	2830	2155	214	271	515
Chloride	407	295	389	282	351	475	390	369	519	511	566
Fluoride	1.8	3.5	3.5	2.7	2.7	5	3.5	3	1.1	1	1.1
Nitrate + Nitrite	6.8	6.4 J	7	5.2	6.8	0.6 J	9.5 J	13	35 J	30	0.1
pH (SU)	8.3	7.8	8.3	8.1	8.2	8	7.7	7.8	7.6	8	7.5
Specific Conductivity (umhos/cm)	3360	3410	3650	3080	3330	4200	10120	9750	6200	6380	6260
Sulfate	967	1120	1026	976	873	1292	5195	4423	3084	2630	2430
Total Dissolved Solids	2310	2423	2636	2105	2271	2887	9168	8703	5323	5455	4563
Total Suspended Solids	46	2.6	11	37	4	277	5458	2204	31	9.8 J	17
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-127 11/13/2001	EP-128 7/31/2001	EP-128 11/13/2001	EP-129 7/24/2001	EP-129 11/2/2001	EP-13 7/18/2001	EP-13 10/31/2001	EP-130 6/8/2001	EP-130 7/26/2001	EP-130 11/12/2001	EP-131 6/8/2001
Total Metals (mg/L)											
Arsenic	2.1	0.7	0.7	0.008	0.01	28	31	0.6	0.2	0.1	0.9
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.5	0.6	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	0.03	0.05	<0.03
Iron	0.8	0.7	0.9	2.6	1	0.2	0.3	2.6	9.4	5.4	0.8
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.006	0.01	0.005	0.03	0.02	0.005
Selenium	0.04	0.007	0.02	0.04	0.04	4.6	4.4	0.3	0.2 J	0.3	0.1
Zinc	<0.02	<0.02 UJ	<0.02	0.03	0.02	0.05	0.02	0.09	0.07 J	0.07	0.05
Dissolved Metals (mg/L)											
Arsenic	1.9	0.7	0.6	0.007	0.01	30	32	0.4	0.1	0.1	0.9
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.5	0.6	<0.005	<0.005	<0.005	<0.005
Calcium	307	123	134	182	190	323	379	732	754	701	180
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.6	0.5	0.5	<0.1	<0.1	<0.1	<0.1	0.5	0.1	<0.1	0.6
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003
Magnesium	82	44	50	108	114	66	67	355	343	315	66
Potassium	103	42	50	11	10	70	99	37	36	38	20
Selenium	0.03	0.01	0.02	0.04	0.04	4.5	4.4	0.4	0.2	0.2	0.2
Sodium	1056	929	979	522	515	2093	2226	1279	1465	1397	695
Zinc	<0.02	<0.02 UJ	<0.02	<0.02	0.02	0.04	0.03	0.05	0.05	0.05	0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	549	340	387	412	390	323	351	782	763	686	393
Chloride	656	649	745	362 J	463	720	660	1857	1220	1567	632
Fluoride	4.6	1.9	1.8	0.7	0.7	1.3	1.5	0.8	0.7	0.6	2.3
Nitrate + Nitrite	0.2	0.4	0.2	11	11	122	147	299	270	263	9.7
pH (SU)	7.5	7.5	8.1	7.9	8	7.7	7.9	7.3	7.4	7.1	7.8
Specific Conductivity (umhos/cm)	6310	5700	6140	3800	3800	10000	10420	11080	10410	10090	4750
Sulfate	2161	1862	1722	1368	1087	4051	3849	3393	2980	2690	1888
Total Dissolved Solids	4702	3556	3864	2802	2832	8082	8654	9332	9022	8549	3590
Total Suspended Solids	6.4	4.3	20	81	42	4.4	8	60	213	156	26
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location Sampling Date	EP-131 7/26/2001	EP-131 11/12/2001	EP-132 6/8/2001	EP-132 7/27/2001	EP-132 11/13/2001	EP-14 7/18/2001	EP-14 10/31/2001	EP-15 7/19/2001	EP-15 11/1/2001	EP-20 7/17/2001	EP-20 10/29/2001
Total Metals (mg/L)											
Arsenic	1.3	1.2	1.5	2	1.8	1.5	1.6	0.01	0.03	1	1.1
Cadmium	0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	0.07	0.09
Chromium	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	3	11	0.9	0.8	4.1	0.4	0.2	1.8	1.7	6.8	1.8
Lead	0.02	0.04	0.02	<0.003	0.008	<0.004	0.005	<0.003 UJ	0.005	0.01	0.004
Selenium	0.1 J	0.1	0.2	0.3 J	0.3	0.3	0.3	0.2	0.2	0.4	0.4
Zinc	0.05 J	0.1	0.02	0.02 J	0.04	<0.02	<0.02	0.03	0.03	0.06	0.08
Dissolved Metals (mg/L)											
Arsenic	1.2	1.2	1.5	1.9	1.7	1.5	1.6	0.02	0.03	1	1
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	0.005	0.06	0.08
Calcium	165	176	217	217	224	395	421	190	202	462	481
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.2	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	54	57	48	48	48	101	107	69	76	230	231
Potassium	23	28	40	47	56	57	64	12	14	51	50
Selenium	0.1	0.09	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.4	0.4
Sodium	790	835	542	620	612	832	805	791	765	1606	1426
Zinc	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	0.03	0.04
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	410	442	322	283	329	377	405	366	366	268	315
Chloride	437	529	449	398	399	400	522	438	530	675	639
Fluoride	2.4	2.5	3.4	4.1	4.1	1.5	1.5	1	1	2.6	2.1
Nitrate + Nitrite	8.8	8.4	9	13 J	8.2	26	23	28 J	18	118	134
pH (SU)	7.8	7.9	7.8	7.9	8.2	7.8	8.3	7.8	8.1	7.2	7.6
Specific Conductivity (umhos/cm)	4420	4540	4160	4000	4000	5530	5410	4520	4420	9190	8400
Sulfate	1538	1341	1488	1460	1136	2600	2166	1576	1363	4218	3688
Total Dissolved Solids	3248	3333	3146	2937	3001	4470	4334	3284	3274	7921	7114
Total Suspended Solids	132	458	28	59	135	1.4	2.5	65 J	206 J	336 J	149 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-21 7/30/2001	EP-21 11/15/2001	EP-22 7/19/2001	EP-22 11/5/2001	EP-23 7/20/2001	EP-23 11/14/2001	EP-24 7/30/2001	EP-24 11/15/2001	EP-25 7/30/2001	EP-25 11/15/2001	EP-26 7/26/2001
Total Metals (mg/L)											
Arsenic	0.04	0.1	3.9	3.8	1	1.1	0.04	0.05	7.4	18	0.4
Cadmium	<0.005	0.02	0.007	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.4
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.2	0.07	0.1	0.04	0.04	<0.03	<0.03	<0.03	0.07	<0.03
Iron	2.4 J	11	1.1	1.5	1.2	1.1	0.3 J	0.3	1.3 J	13	0.5 J
Lead	0.006	0.02	0.05 J	0.03	0.02	0.03	<0.003	<0.003	0.007	0.05	<0.003
Selenium	0.01	0.006	1.8	1.2	0.02	0.01	<0.005	<0.005	0.2	0.1	1.1
Zinc	0.4	1.8	0.5 J	0.6	0.04	0.03	<0.02	<0.02	0.03	0.06	1.6
Dissolved Metals (mg/L)											
Arsenic	0.01	0.01	3.7	3.8	0.8	1.2	0.02	0.03	2.8	2.4	0.4
Cadmium	<0.005	<0.005	0.006	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.4
Calcium	58	25	504	564	132	115	112	103	88	86	218
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.05	0.07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.2	0.8	<0.1	<0.1	0.4	0.5	<0.1	0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	42	31	262	295	77	75	34	32	26	27	71
Potassium	186	268	143	161	59	55	26	29	170	147	72
Selenium	0.005	<0.005	1.6	1.3	0.01	0.006	<0.005	<0.005	0.1	0.02	1.3
Sodium	868	771	1951	2117	709	720	867	820	1015	1042	894
Zinc	<0.02	<0.02	0.5	0.6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	1.4
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	1806	1854	611	700	411	418	1366	1320	1818	1928	299
Chloride	699	740	660	641	553	588 J	696	877	741	911	568
Fluoride	5.1	6	2.5	2.4	2.6	2.9	2.5	2.9	1.8	2	1.8
Nitrate + Nitrite	0.1	0.3	99	98	0.3	0.3	0.2	0.5	0.2	0.2	35
pH (SU)	8	7.9	7.5	7.8	7.9	7.9	7.6	8.3	7.7	7.8	8.1
Specific Conductivity (umhos/cm)	4860	4890	11000	11240	5580	5410	4430	4220	5550	5580	5090
Sulfate	131	67	5515	4759	2149	1465	220	115	125	28	1740
Total Dissolved Solids	2769	2781	9683	9959	3411	3333	2699	2592	3243	3322	3740
Total Suspended Solids	135	515	41 J	57	58	49	13	24	242	503	5.1
Volatile Organic Compounds (mg/L)											
Benzene					0.01	0.009					<0.001
Ethylbenzene					0.05	0.01					<0.001
Toluene					<0.005 UJ	<0.005					<0.001
Total Xylenes					<0.005 UJ	<0.005					<0.001
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons					<5	<5					<5

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Location / Sampling Date	EP-26 11/12/2001	EP-29 7/17/2001	EP-29 10/29/2001	EP-35 7/17/2001	EP-35 10/29/2001	EP-4 7/16/2001	EP-4 10/29/2001	EP-43 7/30/2001	EP-43 11/19/2001	EP-49 7/26/2001	EP-49 11/15/2001
Total Metals (mg/L)											
Arsenic	0.2	0.3	0.3	0.7	0.8	0.1	0.1	0.4	0.4	11	18
Cadmium	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.2	0.06
Chromium	<0.01	0.02	0.04	0.07	0.04	<0.01	<0.01	0.03	<0.01	<0.01	<0.01
Copper	0.09	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	0.03	<0.03	0.1	<0.03
Iron	0.9	14	17	3.2	4.9	6.6	2.9	1.2	0.7	1.7 J	0.5
Lead	0.008	0.01	0.01	0.01	0.02	0.04	0.01	0.02	0.006	<0.003	<0.003
Selenium	1.1	0.1	0.2	0.9	0.7	<0.005	<0.005	0.04	0.02	0.1	0.2
Zinc	0.6	0.04	0.05	0.03	0.05	0.09	0.04	0.05 J	0.03	16	10
Dissolved Metals (mg/L)											
Arsenic	0.2	0.3	0.3	0.6	0.8	0.1	0.1	0.2	0.4	21	19
Cadmium	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.06
Calcium	224	47	55	394	400	116	143	248	278	505	500
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	0.2	<0.1	<0.1	0.6	1	0.2 J	0.4	0.8	0.4
Lead	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.006	<0.003	<0.003	<0.003
Magnesium	71	20	21	136	136	31	39	116	134	143	143
Potassium	57	16	21	17	20	14	18	39	32	286	260
Selenium	1	0.2	0.2	1	0.7	<0.005	<0.005	0.01	0.007	0.1	0.2
Sodium	826	680	667	1064	1041	243	277	1326	1468	1622	1694
Zinc	0.6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03 J	<0.02	10	9.7
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	270	439	328	605	627	305	406	733	476	992	700
Chloride	599	364	343	465	617	248	302	1927	2768	847	638
Fluoride	1.9	2.8	3	1	1.1	0.7	0.7	2.2	1.6	7.3	5.9
Nitrate + Nitrite	18	7	8.1	36	51	<0.05	<0.06 UJ	0.1	<0.3	19	38
pH (SU)	8	8.1	8.1	7.9	7.8	7.9	8.2	7.4	8.3	7.3	7.6
Specific Conductivity (umhos/cm)	4860	3270	3310	6330	6380	1868	2140	8110	11280	10180	9850
Sulfate	1741	960	971	2642	2373	377	434	1509	1894	4310	4408
Total Dissolved Solids	3667	2185	2266	5219	5195	1245	1418	5344	7589	8050	7920
Total Suspended Solids	27	1144	520	191 J	236	294	109 J	88	20	8.3	2.9
Volatile Organic Compounds (mg/L)											
Benzene	<0.001										
Ethylbenzene	<0.001										
Toluene	<0.001										
Total Xylenes	<0.001										
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<5										

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Location / Sampling Date	EP-5 7/16/2001	EP-5 10/29/2001	EP-51 7/20/2001	EP-51 11/5/2001	EP-52 7/20/2001	EP-52 11/5/2001	EP-53 7/30/2001	EP-53 11/14/2001	EP-53 11/15/2001	EP-54 7/26/2001	EP-54 11/5/2001
Total Metals (mg/L)											
Arsenic	0.1	0.1	0.3	0.3	0.8	0.6	27		22	26	26
Cadmium	<0.005	<0.005	0.04	0.04	0.4	0.5	0.2		0.09	0.5	0.4
Chromium	<0.01	<0.01	1.5	2.2	0.07	0.06	<0.01		<0.01	0.01	<0.01
Copper	0.05	0.06	0.2	0.2	0.4	0.5	0.03		0.04	0.4	0.4
Iron	0.6	2.2	5.8	3.9	4	2.4	10 J		4.6	7.8 J	5.2
Lead	0.02	0.03	0.01	0.02	0.7	0.6	0.008		0.02	0.01	0.02
Selenium	<0.005	0.007	0.2	0.2	0.2	0.2	0.5		0.7	0.2	0.1
Zinc	0.1	0.09	0.6	0.4	2.3	3.1	1		0.4	7.9	8.4
Dissolved Metals (mg/L)											
Arsenic	0.1	0.1	0.1	0.1	0.2	0.3	30		22	22	24
Cadmium	<0.005	<0.005	0.04	0.04	0.4	0.4	0.2		0.07	0.3	0.3
Calcium	100	99	796	890	477	540	221		171	447	478
Chromium	<0.01	<0.01	0.08	0.02	<0.01	0.01	<0.01		<0.01	<0.01	<0.01
Copper	0.03	0.05	0.09	0.1	0.3	0.3	<0.03		<0.03	0.1	0.2
Iron	0.2	0.3	4.1	1.5	0.2	<0.1	<0.1		<0.1	<0.1	<0.1
Lead	0.005	0.006	<0.003	<0.003	0.05	0.06	<0.003		<0.003	<0.003	<0.003
Magnesium	46	43	587	699	292	331	86		63	209	213
Potassium	13	14	50	55	21	20	62		50	278	255
Selenium	<0.005	<0.005	0.2	0.2	0.2	0.2	0.6		0.6	0.2	0.1
Sodium	903	789	1509	1700	2207	2413	1205		1081	1485	1452
Zinc	0.03	0.03	0.5	0.5	2.3	3.3	0.6		0.3	6.9	8.6
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	854	915	171	233	744	710	575		411	1137	1152
Chloride	575	542	3832	4743	1193	1421	451		473 J	789	824
Fluoride	2.6	2.6	0.8	0.9	5.8	6.5	4.6		4.5	9.4	9.2
Nitrate + Nitrite	0.05	<0.2 UJ	165	146	121	113	7.3		16	12	13
pH (SU)	7.9	8.3	7.6	7.1	7.4	7.7	7.7		8.3	7.3	7.6
Specific Conductivity (umhos/cm)	4300	3930	13980	15180	11920	12480	6950		6540	9330	8300
Sulfate	808	698	2244	2446	4690	4914	3135		2321	3757	2891
Total Dissolved Solids	2924	2652	10032	10472	10493	10855	4942		4573	7315	6377
Total Suspended Solids	60	80 J	24	40	13	25	768		142	34	25
Volatile Organic Compounds (mg/L)											
Benzene			<0.001	<0.001	<0.005	0.007	<0.005	<0.001		<0.005	0.02 J
Ethylbenzene			<0.001	<0.001	<0.005	<0.001	<0.005	<0.001		<0.005	<0.001 UJ
Toluene			0.009 J	<0.001	<0.005 UJ	<0.001	<0.005	<0.001		<0.005	<0.001 UJ
Total Xylenes			<0.001 UJ	<0.001	<0.005	<0.001	<0.005	<0.001		<0.005	<0.001 UJ
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons			<5	<5	<5 UJ	<5	<5	<5		<5	<5

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Location / Sampling Date	EP-55 7/26/2001	EP-56 7/26/2001	EP-56 11/14/2001	EP-57 7/30/2001	EP-57 11/15/2001	EP-58 7/30/2001	EP-58 11/15/2001	EP-59 7/27/2001	EP-59 11/14/2001	EP-6 7/16/2001	EP-6 10/29/2001
Total Metals (mg/L)											
Arsenic	92	3	2.4	0.4	0.06	3.3	3.8	2	2.3	0.03	0.02
Cadmium	8.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.09	0.02	0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.02	<0.01	<0.01
Copper	0.3	0.04	0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03
Iron	292 J	60 J	11	2.4	2	2.9	2.5	0.7 J	0.2	<0.1	0.2
Lead	1.1	0.04	0.009	<0.003	0.08	0.008	<0.003	<0.003	<0.003	<0.003	<0.003
Selenium	0.4	0.03	0.03	<0.005	<0.005	0.1	0.03	0.2	0.3	0.03	0.05
Zinc	923	0.09	0.04	<0.02 UJ	0.02	0.03 J	<0.02	0.06	<0.02	0.04	0.05
Dissolved Metals (mg/L)											
Arsenic	43	3	2.4	0.2	0.04	3.2	4	2.1	2.3	0.03	0.02
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	557	114	91	203	123	492	494	160	158	182	324
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	16	<0.01	<0.1	<0.1 UJ	<0.1	1	2	0.2	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	230	31	24	152	115	229	231	82	82	65	111
Potassium	162	19	14	21	17	244	230	87	84	17	26
Selenium	0.03	0.002	0.03	<0.005	<0.005	0.1	0.04	0.2	0.2	0.04	0.05
Sodium	1390	732	570	858	650	1764	1829	794	783	686	939
Zinc	4.4	<0.02	<0.02	<0.02 UJ	<0.02	0.02 J	<0.02	0.06	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	2501	1384.7	386	1852	1696	1221	1086	460	478	422	473
Chloride	973	417	424 J	495	419	974	942	451	422 J	365	525
Fluoride	12	3.3	2.9	1	1	5	5.7	4.7	5.5	2	1.8
Nitrate + Nitrite	0.2	1	0.6	0.2	0.6	0.1	0.4	3.7	4.1	3.4	5.4
pH (SU)	7	7.8	8.1	7.7	7.9	7.3	8.2	7.7	7.6	7.9	8
Specific Conductivity (umhos/cm)	9350	3750	3320	5090	4110	11080	11060	4650	4620	4100	5580
Sulfate	4186	1229	833	935	486	4275	4708	1607	1431	1260	2024
Total Dissolved Solids	7422	2584	2252	3715	2806	8652	8659	3412	3517	2924	4320
Total Suspended Solids	8010	2782	372	59	43	162	42	3.1	<1	6.1	25 J
Volatile Organic Compounds (mg/L)											
Benzene	0.07	<0.001	<0.001					<0.005	<0.001		
Ethylbenzene	0.06	<0.001	<0.001					<0.005	<0.001		
Toluene	<0.005	<0.001	<0.001					<0.005	<0.001		
Total Xylenes	<0.005	<0.001	<0.001					<0.005	<0.001		
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	<470	<5	<5					<5	<5		

Table I-2
Groundwater Sampling Results (ASARCO): July 2001 - November 2001

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Location / Sampling Date	EP-60 7/27/2001	EP-60 11/14/2001	EP-61 7/30/2001	EP-61 11/15/2001	EP-62 7/27/2001	EP-62 11/14/2001	EP-63 7/27/2001	EP-63 11/14/2001	EP-64 7/27/2001	EP-64 11/14/2001	EP-65 7/30/2001
Total Metals (mg/L)											
Arsenic	0.03	0.02	0.008	0.01	1.2	1.5	0.05	0.04	0.1	0.1	0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.6	0.2	0.01	0.03	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.04	<0.03
Iron	3 J	1.6	0.5	2.3	0.2 J	0.3	<0.1 UJ	0.5	<0.1 UJ	0.2	0.4
Lead	<0.003	<0.003	<0.003	0.05	<0.003	<0.003	<0.003	0.006	<0.003	<0.003	<0.003
Selenium	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.1	0.5	0.5	0.3
Zinc	0.07	<0.02	<0.02 UJ	<0.02	0.08	<0.02	0.03	<0.02	0.05	<0.02	<0.02 UJ
Dissolved Metals (mg/L)											
Arsenic	0.02	0.02	0.01	0.01	1.1	1.6	0.04	0.04	0.1	0.1	0.006
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	540	519	337	341	166	150	243	227	382	355	255
Chromium	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	0.2 J	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 UJ
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	206	197	154	151	68	63	154	143	124	109	109
Potassium	14	12	18	16	56	51	34	29	21	17	21
Selenium	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.5	0.4	0.3
Sodium	1275	1212	1390	1425	716	645	1333	1294	1869	1690	1077
Zinc	0.06	<0.02	<0.02 UJ	<0.02	0.07	<0.02	0.03	<0.02	0.04	<0.02	<0.02 UJ
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	331	315	505	422	429	364	670	659	261	259	489
Chloride	1006	887	748	843	429	413 J	793	896	727	2014	515
Fluoride	1.6	1.7	1.7	1.7	3	3.1	1.8	2.1	1.8	1.8	2.2
Nitrate + Nitrite	25	24	67	36	3.2	3	0.09	0.5	67	70	19
pH (SU)	7.6	7.8	7.5	7.8	7.9	7.8	7.7	7.9	8	7.9	7.6
Specific Conductivity (umhos/cm)	8120	7850	7790	7850	4220	3960	7130	6980	9010	8540	6090
Sulfate	3287	3318	2974	2753	1482	1216	2611	2246	3660	3368	2281
Total Dissolved Solids	6921	6658	6216	6438	3043	2829	5328	5166	7352	7045	4754
Total Suspended Solids	10	23	5.8	29	3.1	3.9	1.8	8.7	2.2	3.2	10
Volatile Organic Compounds (mg/L)											
Benzene	<0.005	<0.001			<0.005	<0.001	<0.005	<0.001	<0.005	<0.001	
Ethylbenzene	<0.005	<0.001			<0.005	<0.001	<0.005	<0.001	<0.005	<0.001	
Toluene	<0.005	<0.001			<0.005	<0.001	<0.005	<0.001	<0.005	<0.001	
Total Xylenes	<0.005	<0.001			<0.005	<0.001	<0.005	<0.001	<0.005	<0.001	
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons	5	<5			<5	<5	<5	<5	<5	<5	

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Groundwater Sampling Results (ASARCO): July 2001 - November 2001

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Location / Sampling Date	EP-65 11/15/2001	EP-66 7/27/2001	EP-66 11/14/2001	EP-67 7/17/2001	EP-67 10/30/2001	EP-68 7/17/2001	EP-68 10/30/2001	EP-7 7/16/2001	EP-7 10/29/2001	EP-70 7/18/2001	EP-70 10/31/2001
Total Metals (mg/L)											
Arsenic	0.006	8.4	7.4	0.03	0.02	0.01	0.01	0.08	0.07	0.7	0.8
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.1	<0.1 UJ	0.3	<0.1	<0.1	0.4	0.2	2	2.3	0.1	<0.1
Lead	0.009	<0.003	<0.003	<0.003	<0.003 UJ	<0.003	<0.003 UJ	0.004	<0.003	<0.003	<0.003
Selenium	0.3	0.3	0.3	0.09	0.08 J	0.3	0.3 J	<0.005	<0.005	0.2	0.2
Zinc	<0.02	0.05	0.02	0.03	0.03	<0.02	0.02	0.04	0.04	0.1	0.09
Dissolved Metals (mg/L)											
Arsenic	0.008	8.6	7.5	0.03	0.02	0.01	0.01	0.06	0.05	0.7	0.8
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005 UJ	<0.005	<0.005 UJ	<0.005	<0.005	<0.005	<0.005
Calcium	260	489	445	467	443	299	234	88	70	288	332
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	1	0.6	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	110	126	112	131	125	128	102	27	22	151	175
Potassium	18	44	33	13	14	17	15	7.5	9.3	23	29
Selenium	0.2	0.3	0.3	0.1	0.09	0.3	0.2	<0.005	<0.005	0.2	0.2
Sodium	1059	1179	1091	476	431	816	666	475	412	1119	1146
Zinc	<0.02	0.04	0.02	0.02	<0.02 UJ	<0.02	<0.02 UJ	<0.02	<0.02	0.1	0.09
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	588	479	425	245	262	239	264	310	354	220	250
Chloride	592	554	460 J	389	406	754	659	324	236	576	559
Fluoride	2.2	3.2	3	0.8	0.8	0.7	0.7	1.7	2	1.1	1.2
Nitrate + Nitrite	19	33	28	15	16	35	43	<0.05	<0.2 UJ	72	67
pH (SU)	7.8	7.8	7.8	7.6	7.9	7.7	8	7.9	8.2	7.4	8.1
Specific Conductivity (umhos/cm)	6020	7380	6830	4280	4200	5320	4710	2710	2330	6480	6660
Sulfate	1113	3236	2528	1973	1926	1823	1611	704	645	2932	2444
Total Dissolved Solids	4601	6231	5783	3668	3585	4097	3492	1832	1561	5216	5333
Total Suspended Solids	5.3	2.2	6.4	2.3	1.6 J	17 J	7 J	13	71 J	3.6	2
Volatile Organic Compounds (mg/L)											
Benzene		<0.005	<0.001								
Ethylbenzene		<0.005	<0.001								
Toluene		<0.005	<0.001								
Total Xylenes		<0.005	<0.001								
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons		<5	<5								

Table I-2
Groundwater Sampling Results (ASARCO): July 2001 - November 2001

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Former ASARCO Smelter Site

Location / Sampling Date	EP-71 7/18/2001	EP-71 10/31/2001	EP-72 7/18/2001	EP-72 10/31/2001	EP-73 7/20/2001	EP-73 11/5/2001	EP-75 7/20/2001	EP-75 11/5/2001	EP-76 7/20/2001	EP-76 11/5/2001	EP-77 7/19/2001
Total Metals (mg/L)											
Arsenic	0.1	0.1	0.2	0.2	0.05	0.06	15	16	1	0.9	5.5
Cadmium	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	0.006	0.005	<0.005	<0.005	0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	0.06	0.06	<0.03	0.03	<0.03
Iron	<0.1	<0.1	<0.1	0.1	0.4	<0.1	0.6	0.1	<0.1	0.1	0.7
Lead	<0.003	<0.003	<0.003	0.004	0.004	<0.003	0.02	<0.003	0.007	0.009	0.004 J
Selenium	0.3	0.2	15	13	0.9	0.9	4.2	3.9	0.2	0.1	0.02
Zinc	0.02	<0.02	0.07	0.09	0.03	0.03	0.09	0.07	0.05	0.07	0.03
Dissolved Metals (mg/L)											
Arsenic	0.1	0.1	0.09	0.3	0.04	0.05	15	16	1.1	0.9	5.4
Cadmium	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	0.006	0.006	<0.005	<0.005	<0.005
Calcium	350	384	352	365	218	235	401	440	161	152	105
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	0.04	0.03	<0.03	<0.03	0.07	0.05	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	0.003	<0.003
Magnesium	167	188	558	567	101	106	389	422	95	91	30
Potassium	17	21	21	24	332	351	848	734	96	84	19
Selenium	0.2	0.2	16	13	0.9	0.9	4.2	4.2	0.2	0.2	0.02
Sodium	1008	1047	2256	2099	922	977	3849	3862	852	787	732
Zinc	<0.02	<0.02	0.08	0.06	0.03	0.03	0.08	0.08	0.05	0.06	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	298	378	403	436	305	345	573	600	490	512	353
Chloride	580	596	674	588	428	489	286	249	511	436	434
Fluoride	0.9	0.9	1.3	1.3	2.7	2.8	1.8	1.9	2	2.1	3.5
Nitrate + Nitrite	80	72	86	64	14	18	259	199	5.8	3.9	<0.7 UJ
pH (SU)	8	8.2	7.9	8.2	7.8	7.8	7.4	7.5	8.1	8	7.9
Specific Conductivity (umhos/cm)	6400	6430	11940	11220	6100	6020	19140	19000	5140	4800	3820
Sulfate	2790	2429	6639	5999	2857	2466	11157	10773	1807	1445	1214
Total Dissolved Solids	5350	5317	11307	10665	4759	4587	18336	17643	3698	3451	2627
Total Suspended Solids	1.8	1.2	1.3	5.2	<1	2.1	29	4.2	<1	3	32 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-77 11/1/2001	EP-78 7/25/2001	EP-78 11/12/2001	EP-79 7/25/2001	EP-79 11/13/2001	EP-80 7/25/2001	EP-80 11/13/2001	EP-81 7/25/2001	EP-81 11/13/2001	EP-82 7/25/2001	EP-82 11/12/2001
Total Metals (mg/L)											
Arsenic	7.8	3.5	4.1	0.02	0.03	0.02	0.04	0.5	0.7	0.02	0.02
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.3	0.5 J	0.2	1.3 J	0.2	0.3 J	0.7	<0.1 UJ	0.1	<0.1 UJ	0.5
Lead	0.005	0.007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.004
Selenium	0.01	0.2	0.2	0.1	0.1	0.01	0.02	0.3	0.3	0.1	0.1
Zinc	<0.02	0.04	0.02	0.02	<0.02	0.03	0.02	0.05	0.03	0.03	<0.02
Dissolved Metals (mg/L)											
Arsenic	8.2	3.4	4.2	0.02	0.02	0.02	0.03	0.6	0.6	0.01	0.02
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	117	61	70	48	47	182	196	165	152	169	170
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	28	32	37	57	56	85	91	82	75	94	90
Potassium	28	53	63	9.2	11	20	24	24	26	26	31
Selenium	0.02	0.3	0.2	0.1	0.09	0.009	0.01	0.3	0.3	0.1	0.1
Sodium	782	621	663	981	946	916	987	433	391	829	869
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	0.05	<0.02	0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	354	378	415	456	464	514	505	464	407	421	399
Chloride	449	295	372	587	538	449	495	145	144	592	526
Fluoride	4.5	3.1	3.2	4.5	4.8	1.2	1.3	2	2.1	2.2	2.7
Nitrate + Nitrite	0.9	10	9.7	9.7	9.6	0.8	1.8	7.7	5.5	8.2	9.1
pH (SU)	8.3	8.1	8.3	8.1	8.3	7.8	8.4	7.6	8.3	7.6	8.1
Specific Conductivity (umhos/cm)	3940	3470	3700	4750	4580	5040	5170	2900	2840	4760	4950
Sulfate	1016	1020	951	1337	1237	1719	1748	1034	886	1347	1400
Total Dissolved Solids	2728	2317	2535	3259	3210	3656	3966	2204	2136	3456	3616
Total Suspended Solids	9.8 J	19	8.1	30	8.4	6.9	21	1.7	3.9	3	24
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

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Location / Sampling Date	EP-83 7/24/2001	EP-83 11/2/2001	EP-84 7/24/2001	EP-84 11/2/2001	EP-85 7/25/2001	EP-85 11/13/2001	EP-86 7/25/2001	EP-86 8/11/2001	EP-86 11/13/2001	EP-88 7/19/2001	EP-88 11/1/2001
Total Metals (mg/L)											
Arsenic	0.01	0.02	0.03	0.03	2.2	2.5	0.01	<0.005	0.03	0.02	0.04
Cadmium	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.025	<0.03	<0.03	<0.03
Iron	0.3	0.6	<0.1	<0.1	<0.1	<0.1	0.2	0.16	0.2	1	0.7
Lead	0.01	<0.003	0.02	0.02	<0.003	<0.003	<0.003	<0.003	<0.003	0.004 J	0.008
Selenium	0.04	0.05	0.02	0.03	0.1 J	0.08	0.03 J	0.029	0.04	0.09	0.05
Zinc	<0.02	0.02	0.04	0.03	<0.02 UJ	<0.02	0.02 J	<0.02	<0.02	0.03 J	0.05
Dissolved Metals (mg/L)											
Arsenic	0.01	0.02	0.03	0.03	2.1	2.4	0.01		0.02	0.03	0.04
Cadmium	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
Calcium	63	66	199	212	104	51	38		39	74	71
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1
Lead	<0.003	<0.003	0.01	0.01	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
Magnesium	58	61	92	103	52	25	30		30	53	47
Potassium	10	10	8.6	9.7	30	26	9.1		11	6.6	8.4
Selenium	0.04	0.04	0.02	0.02	0.1	0.07	0.03		0.03	0.09	0.06
Sodium	722	691	303	333	546	380	500		518	1000	1120
Zinc	<0.02	<0.02	0.03	0.03	<0.02	<0.02	<0.02		<0.02	<0.02	0.06
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	365	387	301	315	377	403	351		366	495	561
Chloride	374 J	441	295 J	365	273	204	258		330	446	487
Fluoride	3	3	0.6	0.7	3.1	4	2.6		2.7	1.9	2.2
Nitrate + Nitrite	9.3	9.9	8.1	9.9	8.7	4.2	7		6.6	5.3 J	3.6
pH (SU)	8.2	8.2	8	7.9	7.8	8.4	8.1	8.3	8.1	8.1	7.9
Specific Conductivity (umhos/cm)	3760	3810	2850	3060	3190	2190	2620	2690	2680	4860	4940
Sulfate	1323	1054	962	862	1061	464	679		536	1604	1532
Total Dissolved Solids	2560	2584	2091	2197	2209	1440	1702	1692	1782	3465	3489
Total Suspended Solids	7.3	32	<1	2	<1	<1	7.9		8.2	30 J	36 J
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

Table I-2
Groundwater Sampling Results (ASARCO): July 2001 - November 2001

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-89 7/17/2001	EP-89 10/30/2001	EP-90 7/19/2001	EP-90 11/1/2001	EP-93 7/24/2001	EP-93 11/2/2001	EP-94 7/24/2001	EP-94 11/2/2001	EP-95 7/24/2001	EP-95 11/2/2001	EP-96 7/24/2001
Total Metals (mg/L)											
Arsenic	0.01	0.01	0.2	0.2	0.03	0.05	0.02	0.03	0.02	0.02	0.04
Cadmium	<0.005	<0.005	0.01	0.009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	0.2	6.2	4.4	4.3	2.8	0.2	<0.1	<0.1	<0.1	2.4
Lead	<0.003	0.009 J	0.01 J	0.004	0.01	<0.003	<0.003	<0.003	<0.003	<0.003	0.007
Selenium	0.02	0.02 J	1.1	0.7	0.04	0.04	0.03	0.03	0.03	0.03	0.03
Zinc	0.02	0.03	0.04	0.03	0.04	0.03	0.03	0.03	<0.02	<0.02	0.03
Dissolved Metals (mg/L)											
Arsenic	0.01	0.01	0.1	0.2	0.03	0.05	0.02	0.02	0.02	0.02	0.04
Cadmium	<0.005	<0.005 UJ	0.01	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	167	172	249	227	62	65	102	106	36	38	108
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	67	70	131	123	58	62	103	106	61	64	84
Potassium	18	21	11	13	8.8	9.4	16	14	4.8	2.5	13
Selenium	0.02	0.02	1.1	0.7	0.04	0.04	0.03	0.03	0.03	0.03	0.03
Sodium	382	400	938	885	887	862	870	813	610	586	819
Zinc	<0.02	<0.02 UJ	0.02	0.02	0.03	0.02	0.02	0.03	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)											
Bicarbonate Alkalinity	268	288	382	397	628	567	418	403	354	359	453
Chloride	381	367	467	462	517 J	468	647	626	395 J	374	511 J
Fluoride	0.7	0.8	0.5	0.5	1.7	1.7	1.2	1.4	3.7	4.1	1.1
Nitrate + Nitrite	9.2	11	25 J	23	5.8	8.3	13	10	8.6	8.3	13
pH (SU)	8	8.3	7.8	8.2	8	8	8.1	7.9	8.2	8.3	8.1
Specific Conductivity (umhos/cm)	2930	2960	5560	5060	4610	4440	4820	4740	3280	3380	4560
Sulfate	772	877	2340	1819	1355	1180	1674	1357	853	845	1610
Total Dissolved Solids	2092	2089	4384	3937	3196	3038	3431	3330	2185	2239	3258
Total Suspended Solids	2.3 J	5 J	103 J	171 J	117	111	<1	1.8	<1	<1	231
Volatile Organic Compounds (mg/L)											
Benzene											
Ethylbenzene											
Toluene											
Total Xylenes											
Petroleum Hydrocarbons (mg/L)											
Total Petroleum Hydrocarbons											

Table I-2
Groundwater Sampling Results (ASARCO): July 2001 - November 2001

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Location / Sampling Date	EP-96 11/2/2001	EP-97 7/24/2001	EP-97 11/2/2001	EP-98 7/24/2001	EP-98 11/2/2001
Total Metals (mg/L)					
Arsenic	0.03	0.2	0.2	0.04	0.04
Cadmium	<0.005	0.01	0.01	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.3	0.3	<0.03	0.03
Iron	0.9	0.5	2.3	<0.1	0.1
Lead	<0.003	0.04	0.08	0.006	<0.003
Selenium	0.03	0.1	0.02	0.5	0.3
Zinc	0.03	0.1	0.1	0.02	0.03
Dissolved Metals (mg/L)					
Arsenic	0.03	0.1	0.2	0.04	0.04
Cadmium	<0.005	0.01	0.01	<0.005	<0.005
Calcium	116	154	119	81	80
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	0.3	0.2	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	0.02	0.02	<0.003	<0.003
Magnesium	91	109	87	77	79
Potassium	13	10	9.4	96	101
Selenium	0.03	0.09	0.01	0.5	0.3
Sodium	807	973	626	1255	1071
Zinc	0.03	0.1	0.1	0.02	0.03
Water Quality Parameters (mg/L)					
Bicarbonate Alkalinity	447	500	688	416	411
Chloride	528	548 J	450	584	659
Fluoride	1.1	1.7	1.1	2.7	2.1
Nitrate + Nitrite	13	3	0.2	12	13
pH (SU)	7.9	7.8	8.1	8.1	8.1
Specific Conductivity (umhos/cm)	4640	5440	3720	6210	5680
Sulfate	1172	2035	810	2380	1713
Total Dissolved Solids	3277	4039	2561	4539	4003
Total Suspended Solids	62	15	92	2	9.5
Volatile Organic Compounds (mg/L)					
Benzene					
Ethylbenzene					
Toluene					
Total Xylenes					
Petroleum Hydrocarbons (mg/L)					
Total Petroleum Hydrocarbons					

Table I-2 Notes
Groundwater Sampling Results (ASARCO)

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Notes:
1. Blank cells indicate the parameter was not analyzed.
mg/L = milligram(s) per liter
SU = standard unit
umhos/cm = micromhos per centimeter

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 I-3
Surface Water Sampling Results (Texas Custodial Trust)

Revised
Supplemental Remediation Investigation Report
Former ASARCO Smelter Site

Location	SEP-1					SEP-10					SEP-11					SEP-12				
Sampling Date	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*
Total Metals (mg/L)																				
Aluminum	3.66	0.62	9.36 J	0.154	13.8	3.84	0.25	8.2 J	0.287	11.7	4.82	0.659	8.27 J	0.463	13.5	4.34	0.725	11.1 J	0.751	13.4
Antimony	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161
Arsenic	<0.01	0.0117	<0.00585 UJ	<0.0103 UJ	0.00978	<0.01	0.225	<0.0134 UJ	0.239	0.00776	<0.01	0.158	<0.013 UJ	0.183	0.00774	<0.01	0.158	<0.0147 UJ	0.124	0.00823
Barium		0.0502	0.167 J	0.0337	0.225		0.065	0.153 J	0.0583	0.221		0.0704	0.154 J	0.0616	0.214		0.08	0.193 J	0.0779	0.218
Cadmium	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854
Calcium	75.1	107	70.1 J	90.8	102	79.6	118	68.9 J	133	97.5	85.7	128	73.9 J	136	98.6	85.4	116	82.8 J	110	102
Chromium	<0.01	<0.0014	0.00607 J	<0.0014	0.0103	<0.01	<0.0014	0.00693 J	0.00281 J	0.0088	<0.01	<0.0014	0.00504 J	<0.0014	0.0101	<0.01	<0.0014	0.00701 J	<0.0014	0.0101
Cobalt		<0.00136	0.00259 J	<0.00136	0.00486 J		<0.00136	0.00247 J	<0.00136	0.00417 J		<0.00136	0.00221 J	<0.00136	0.0045 J		<0.00136	0.0032 J	<0.00136	0.0046 J
Copper	0.005	0.00532 J	0.00676 J	<0.002	0.015	<0.005	0.00534 J	0.00553 J	<0.00248 UJ	0.0103	0.007	0.00791 J	0.00514 J	<0.00254 UJ	0.0106	0.005	0.00877 J	0.00935 J	<0.00396 UJ	0.0122
Iron	2.54	0.364	5.85 J	0.168 J	8.93	2.56	0.478	5.46 J	0.628	7.62	3.26	1.08	5.2 J	0.774	8.65	2.89	0.848	7.04 J	0.733	8.74
Lead	<0.005	0.00278 J	0.00515 J	<0.000733	0.00899	<0.005	0.00179 J	0.00441 J	0.0025 J	0.00702	<0.005	0.00339 J	0.00431 J	0.00266 J	0.00752	<0.005	0.00704	0.007 J	0.00561	0.00786
Magnesium	18.2	26.4	15.7 J	22.1	20	18.2	58	16.4 J	60.4	18.9	21	74.3	19.6 J	70.4	20.3	21.4	71.2	21 J	64.3	19.8
Manganese	0.102	0.261	0.252 J	0.228	0.361	0.106	0.393	0.206 J	0.394	0.282	0.144	0.464	0.213 J	0.556	0.288	0.141	0.548	0.295 J	0.605	0.307
Mercury		<0.000292 UJ	0.000152 J	<0.00013	<0.00013		<0.00013	<0.00013 UJ	<0.00013	<0.00013		<0.00013	<0.00013 UJ	<0.00013	<0.00013		<0.000292 UJ	<0.00013 UJ	<0.00013	<0.00013
Molybdenum		<0.0193 UJ	0.00659 J	0.0166	0.0116		0.265	0.0146 J	0.214	0.00779		0.272	0.0279 J	0.182	0.00785		0.185	0.0244 J	0.137	0.00741
Nickel		<0.00217	0.00686 J	<0.00217	0.0123		0.00308 J	0.00655 J	0.00273 J	0.0109		0.0041 J	0.00607 J	0.003 J	0.0118		0.00412 J	0.00821 J	0.0034 J	0.0126
Potassium	11.6	14.3	8.79 J	12.9	10	11.5	29.9	9.23 J	24.2	11.5	12.7	37.7	10.7 J	25	12.1	12.8	32.3	10.9 J	21.6	12.3
Selenium	<0.02	0.00172 J	<0.00108 UJ	0.00108 J	<0.00108	<0.02	0.0246	0.00186 J	0.0108	<0.00108	<0.02	0.0116	<0.00108 UJ	0.00669	<0.00108	<0.02	0.0339	0.00196 J	0.013	<0.00108
Sodium	143	560	88.4 J	468	90.4	148	622	116 J	768	88.9	186	936	142 J	949	89.9	191	874	151 J	767 J	90.8
Thallium		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693
Zinc		0.0302	0.0202 J	0.0257	0.0335		0.0088 J	0.0169 J	0.0052 J	0.0286		0.00736 J	0.0169 J	0.00481 J	0.0317		0.0211 J	0.0238 J	0.00586 J	0.0339
Dissolved Metals (mg/L)																				
Aluminum	<0.05					<0.05					<0.05					<0.05				
Antimony	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	0.00184 J	<0.00161 UJ	<0.00161	<0.00161
Arsenic	<0.01	<0.00847 UJ	<0.00441 UJ	<0.00938 UJ	0.00677	<0.01	0.217	<0.0124 UJ	0.165	0.00631	<0.01	0.113	<0.0105 UJ	0.133	0.0058	<0.01	0.136	<0.0144 UJ	0.107	0.0059
Barium		0.048	0.0883 J	0.0321	0.0944		0.0704	0.0912 J	0.0543	0.0946		0.0636	0.0959 J	0.0609	0.0976		0.0699	0.1 J	0.0706	0.0974
Cadmium	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854
Calcium	73.5					74.1					81.9					80.2				
Chromium	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014	<0.01	<0.0014	0.00229 J	<0.0014	<0.0014	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014
Cobalt		<0.00136	0.00136 J	0.00251 J	0.00434 J		0.00148 J	<0.00136 UJ	<0.00136	0.00333 J		0.00138 J	<0.00136 UJ	0.00213 J	0.00442 J		0.00167 J	<0.00136 UJ	0.00323 J	0.00453 J
Copper	<0.005	<0.00115	0.0168 J	<0.00206 UJ	<0.002	<0.005	<0.00115	<0.002 UJ	<0.002	<0.002	<0.005	<0.00115	<0.002 UJ	<0.002	<0.002	<0.005	0.00141 J	<0.002 UJ	<0.00298 UJ	<0.002
Iron	0.013	<0.101	<0.101 UJ	<0.101	<0.101	0.015	<0.101	<0.101 UJ	<0.101	<0.101	0.012	<0.101	<0.101 UJ	0.184 J	<0.101	0.017	<0.101	<0.101 UJ	<0.101	<0.101
Lead	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733
Magnesium	16.1					17.3					20.9					20.8				
Manganese	0.006					0.028					0.022					0.028				
Mercury		<0.00013	<0.00013 UJ	<0.00013	<0.00013		<0.000186 UJ	0.000197 J	<0.00013	<0.00013		<0.000219 UJ	<0.00013 UJ	<0.00013	<0.00013		<0.00013	0.000201 J	<0.00013	<0.00013
Molybdenum		0.0175	0.00705 J	0.0166	<0.0101 UJ		0.3	0.0157 J	0.193	<0.00855 UJ		0.272	0.028 J	0.188	<0.00835 UJ		0.194	0.0268 J	0.136	<0.00858 UJ
Nickel		<0.00217	<0.00217 UJ	<0.00217	<0.00217		0.00324 J	<0.00217 UJ	0.00237 J	<0.00217		0.00392 J	<0.00217 UJ	0.00287 J	<0.00217		0.00416 J	<0.00217 UJ	0.00277 J	<0.00217
Potassium	9.67					10					11.7					11.6				
Selenium	<0.02	<0.00108	<0.00108 UJ	<0.00108	<0.00108	<0.02	0.0266	0.0018 J	0.00697	<0.00108	<0.02	0.0105	0.00119 J	0.00581	<0.00108	<0.02	0.0353	0.00198 J	0.013	<0.00108
Sodium	140					143					182					185				
Thallium		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		0.000882 J	<0.000693 UJ	<0.000693	<0.000693
Zinc		<0.0234 UJ	0.0243 J	0.0257	<0.00355		<0.00542 UJ	<0.00355 UJ	0.00394 J	<0.00355		<0.00743 UJ	<0.00355 UJ	<0.00355	<0.00355		<0.00979 UJ	<0.00355 UJ	0.00381 J	<0.00355
Water Quality Parameters (mg/L)																				
Chloride	113	476 J	82.4 J	502	98.5	114	380 J	95.3 J	601	96.1	139	621 J	125 J	723	98.9	143	604 J	132 J	644	99.1
Fluoride	0.6	<0.83 UJ	0.638 J	1.16	1.06	0.63	<2.14 UJ	0.703 J	2.22	0.845	0.68	<2.12 UJ	0.719 J	2.08	0.833	0.71	<1.85 UJ	0.718 J	1.91	0.805
Nitrate	1.1		<0.206 UJ			131		<0.206 UJ			0.58		<0.206 UJ			0.62		<0.206 UJ		
Nitrate + Nitrite		3.31	<0.4 UJ	9.61	1.09		<1	<0.4 UJ	<1	1.09		<1	<0.4 UJ	<1	1.09		1.36 J	<0.4 UJ	2.46 J	1.1
Nitrite	<0.5		<0.4 UJ			<0.5		<0.4 UJ			<0.5		<0.4 UJ			<0.5		<0.4 UJ		
Sulfate	198	550	129 J	558	155 J	214	851	160 J	1000	151 J	268	1140	225 J	1140	153 J	279	1120	243 J	1120	153 J
Sulfide	<0.1	<0.046 UJ	<0.0131 UJ	<0.021 UJ	<0.0131	<0.1	<0.07 UJ	<0.0131 UJ	<0.036 UJ	0.02 J	<0.1	<0.044 UJ	<0.0131 UJ	<0.031 UJ	<0.0131	<0.1	<0.034 UJ	<0.0131 UJ	<0.023 J	<0.0131
Total Alkalinity		222	160 J	174	150		278	160 J	309	147		272	170 J	308	150		253	169 J	256	159
Total Dissolved Solids	750	1900	539 J	1920	568	824	2310	601 J	2700	555	984	3080	748 J	3130	543	954	3020	782 J	2880	572
Total Organic Carbon	4.31	27.4 J	7.73 J	5.5	3.7	3.98	32.5 J	6.71 J	4.19	3.1	4.06	37.5 J	8.98 J	5.23	3.08	3.94	28.9 J	7.63 J	5.27	3.05
Total Suspended Solids	97	16.4	246 J	9.6	562	68	16.4	230 J	94.4	524	119	44	216 J	39.2	420	96	32	222 J	39.6	460

Notes are included on Page 3.

Table I-3
Surface Water Sampling Results (Texas Custodial Trust)

Revised
Supplemental Remediation Investigation Report
Former ASARCO Smelter Site

Location	SEP-13					SEP-2					SEP-3					SEP-4				
Sampling Date	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*
Total Metals (mg/L)																				
Aluminum	4.22	0.272	11.5 J	0.853	2.52	4.29	0.958	10.1 J	0.49 J	13.1	3.97	0.872	10.2 J	0.3	12.1	3.21 J	2.3 J	7.01 J	0.235	14.3
Antimony	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161
Arsenic	<0.01	0.128	<0.0167 UJ	0.122	0.00626	<0.01	0.159	<0.0137 UJ	0.167	0.0096	<0.01	0.0156	<0.00623 UJ	0.0168	0.00929	<0.01	0.113	<0.0142 UJ	0.0898	0.00948
Barium		0.0655	0.21 J	0.0821	0.209		0.074	0.176 J	0.0591	0.233		0.0504	0.183 J	0.037	0.215		0.085	0.156 J	0.0594	0.232
Cadmium	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854
Calcium	81.6	113	89.9 J	123	101	82.9	132	79.4 J	125	105	76.6	102	74.7 J	90.5	98.6	99.3	125	78.3 J	121	107
Chromium	<0.01	<0.0014	0.00748 J	<0.0014	0.00175 J	<0.01	<0.0014	0.00633 J	<0.0014	0.00987	<0.01	<0.0014	0.00648 J	<0.0014	0.00919	<0.01	<0.0014	0.00442 J	<0.0014	0.011
Cobalt		<0.00136	0.00328 J	<0.00136	0.0023 J		<0.00136	0.00283 J	<0.00136	0.00465 J		<0.00136	0.00299 J	<0.00136	0.00413 J		<0.00136	0.00191 J	<0.00136	0.00499 J
Copper	0.006	0.00399 J	0.0111 J	<0.00376 UJ	0.00613 J	0.006	0.00981 J	0.0067 J	<0.00488 UJ	0.0116	0.007	0.019	0.00798 J	<0.00401 UJ	0.011	0.006	0.0157 J	0.00474 J	<0.00425 UJ	0.0117
Iron	2.8	0.466	7.45 J	0.873	1.14	2.85	0.969	6.25 J	0.548	8.33	2.75	0.656	6.47 J	0.298	7.83	2.12 J	1.72 J	4.33 J	0.343	9.22
Lead	<0.005	0.00406 J	0.00872 J	0.00492 J	0.00649	<0.005	0.0106	0.00606 J	0.00673	0.00828	<0.005	0.0138	0.00591 J	0.00236 J	0.00764	<0.005	0.0112	0.00426 J	0.0035 J	0.0084
Magnesium	23.9	69.1	22.4 J	66.4	16.5	20.7	80.1	20.2 J	75.7	21.2	18.6	24.3	16.5 J	22.4	19.8	27.6	67.2	22.2 J	68.4	21.3
Manganese	0.147	0.446	0.334 J	0.74	0.287	0.125	0.399	0.265 J	0.372	0.351	0.107	0.307	0.276 J	0.238	0.315	0.143	0.633	0.2 J	0.677	0.361
Mercury		<0.000218 UJ	<0.00013 UJ	<0.00013	<0.00013		<0.000269 UJ	<0.00013 UJ	<0.00013	<0.00013		<0.000296 UJ	<0.00013 UJ	<0.00013	<0.00013		<0.00013	<0.00013 UJ	<0.00013	<0.00013
Molybdenum		0.163	0.0259 J	0.121	<0.00612 UJ		0.264	0.0255 J	0.205	0.0103		<0.018 UJ	0.00682 J	0.0187	0.00965		0.124	0.0291 J	0.0918	0.00827
Nickel		0.00341 J	0.00934 J	0.00345 J	0.00429 J		0.00572	0.00768 J	0.00383 J	0.0124		<0.00217	0.00767 J	<0.00217	0.0111		0.00402 J	0.00607 J	0.00275 J	0.013
Potassium	13.8	30.3	11.4 J	21.4	8.99	12.5	41.2	10.9 J	27.9	10.1	11.7	14.4	9.16 J	13.1	9.95	13.8	25.9	10.6 J	18.6	10.3
Selenium	<0.02	0.0254	0.00187 J	0.00994	<0.00108	<0.02	0.0428	0.00179 J	0.0174	<0.00108	<0.02	0.00335 J	<0.00108 UJ	0.00338 J	<0.00108	<0.02	0.00762	0.00185 J	0.00887	<0.00108
Sodium	205	813	152 J	807	110	184	1040	141 J	883	96.8	140	499	92.4 J	461	96.8	255	760	196 J	848	90.1
Thallium		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693
Zinc		0.00873 J	0.0284 J	0.00766 J	0.0136 J		0.0106 J	0.0211 J	0.00546 J	0.0362		0.0396	0.0218 J	0.0292	0.03		0.0244 J	0.0135 J	0.00571 J	0.0351
Dissolved Metals (mg/L)																				
Aluminum	0.051					<0.05					<0.05					<0.05				
Antimony	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	0.00163 J	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161
Arsenic	<0.01	0.124	<0.0148 UJ	0.111	0.00524	<0.01	0.144	<0.0117 UJ	0.129	0.00717	<0.01	<0.0126 UJ	<0.00491 UJ	0.0137	0.00674	<0.01	0.101	<0.0137 UJ	0.0746	0.00691
Barium		0.0645	0.102 J	0.0653	0.0946		0.0628	0.0968 J	0.0553	0.0979		0.0446	0.0847 J	0.0311	0.0909		0.0605	0.11 J	0.0606	0.0986
Cadmium	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854
Calcium	81.3					81.5					70.8					98.2				
Chromium	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014
Cobalt		0.00164 J	0.0014 J	<0.00136	0.00448 J		0.00137 J	<0.00136 UJ	<0.00136	0.00332 J		<0.00136	<0.00136 UJ	0.0026 J	<0.00136		<0.00136	<0.00136 UJ	0.0027 J	0.00419 J
Copper	<0.005	0.00345 J	<0.002 UJ	<0.00403 UJ	<0.002	<0.005	0.00334 J	<0.002 UJ	<0.002	<0.002	<0.005	0.00151 J	<0.002 UJ	<0.00215 UJ	<0.002	<0.005	0.00167 J	<0.002 UJ	<0.002	<0.002
Iron	0.038	<0.101	<0.101 UJ	<0.101	<0.101	0.022	<0.101	<0.101 UJ	<0.101	<0.101	0.023	<0.101	<0.101 UJ	<0.101	<0.101	0.011	<0.101	<0.101 UJ	<0.101	<0.101
Lead	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733	<0.005	0.000903 J	<0.000733 UJ	0.000753 J	<0.000733	<0.005	<0.000733	<0.000733 UJ	<0.000733	0.00109 J	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733
Magnesium	21.9					20.7					15.6					26.9				
Manganese	0.033					0.019					0.006					0.076				
Mercury		<0.00013	<0.00013 UJ	<0.00013	<0.00013		<0.00013	<0.00013 UJ	<0.00013	<0.00013		<0.00027 UJ	0.000152 J	<0.00013	<0.00013		<0.00013	<0.00013 UJ	<0.00013	<0.00013
Molybdenum		0.163	0.028 J	0.116	<0.00809 UJ		0.283	0.0274 J	0.198	<0.00988 UJ		0.0189	0.0064 J	0.0184	<0.00854 UJ		0.117	0.03 J	0.0905	<0.00888 UJ
Nickel		0.00347 J	<0.00217 UJ	0.0026 J	<0.00217		0.0056	<0.00217 UJ	0.00328 J	<0.00217		<0.00217	<0.00217 UJ	<0.00217	<0.00217		0.00304 J	<0.00217 UJ	0.0026 J	<0.00217
Potassium	11.7					11.7					9.39					13.4				
Selenium	<0.02	0.0258	0.00156 J	0.0101	<0.00108	<0.02	0.0432	0.00209 J	0.00875 J	<0.00108	<0.02	0.00296 J	<0.00108 UJ	0.00271 J	<0.00108	<0.02	0.00722	0.0015 J	0.00789	<0.00108
Sodium	203					184					135					253				
Thallium		0.00185	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693
Zinc		<0.0247 UJ	<0.00355 UJ	0.00435 J	<0.00355		<0.011 UJ	<0.00355 UJ	<0.00355	<0.00355		<0.0288 UJ	<0.00355 UJ	0.0248 J	<0.00355		<0.00355	<0.00355 UJ	0.00647 J	<0.00355
Water Quality Parameters (mg/L)																				
Chloride	165	598 J	134 J	614	94.6	138	675 J	125 J	749	109	113	420 J	88.6 J	494	100	172	566 J	166 J	616	94.6
Fluoride	0.73	<1.81 UJ	0.742 J	1.85	0.811	0.7	<2.12 UJ	0.725 J	2.16	1.17	0.59	<0.92 UJ	0.62 J	1.23	1.13	0.77	<1.6 UJ	0.763 J	1.84	1.19
Nitrate	0.53		<0.206 UJ			0.61		<0.206 UJ			1.12		<0.206 UJ			0.62		<0.206 UJ		
Nitrate + Nitrite		1.44 J	<0.4 UJ	2.37 J	1.09		1.5 J	<0.4 UJ	2.48 J	1.09		4	<0.4 UJ	9.8	1.24		1.48 J	<0.4 UJ	2.8	1.06
Nitrite	<0.5		<0.4 UJ			<0.5		<0.4 UJ			<0.5		<0.4 UJ			<0.5		<0.4 UJ		
Sulfate	361	1140	252 J	1090	149 J	270	1300	231 J	1250	155 J	190	492	141 J	566	155 J	335	1010	303 J	1090	149 J
Sulfide	<0.1	<0.042 UJ	<0.0131 UJ	<0.038 UJ	<0.0131	<0.1	<0.046 UJ	<0.0131 UJ	<0.023 UJ	<0.0131	<0.1	<0.034 UJ	<0.0131 UJ	<0.019 UJ	<0.0131	<0.1	<0.078 UJ	0.015 J	<0.03 UJ	<0.0131
Total Alkalinity		218	171 J	261	146		272	175 J	251	143		201	170 J	178	141		249	180 J	269	141
Total Dissolved Solids	1060	2920	791 J	2860	571	940	3370	724 J	3360	572	758	1860	555 J	1880	544	1060	2820	948 J	2910	534
Total Organic Carbon	4.04	28.8 J	8.26 J	6.59	3.13	3.95	41.5 J	8.09 J	6.55	3.75	4.37	<11.8 UJ	7.33 J	6.11	3.29	4.09	36.5 J	7.71 J	6.56	3.29
Total Suspended Solids	69	40	266 J	23.6	514	89	42	312 J	27.2	536	84	26.4	310 J	22.4	404	58	88 J	184 J	16	554

Notes are included on Page 3.

Table I-3
Surface Water Sampling Results (Texas Custodial Trust)

Revised
Supplemental Remediation Investigation Report
Former ASARCO Smelter Site

Location	SEP-6					SEP-7					SEP-9				
Sampling Date	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*	*10/4/2010*	*3/8/2011*	*9/12/2011*	*3/5/2012*	*8/23/2012*
Total Metals (mg/L)															
Aluminum	3.14	0.662	9.72 J	0.248	12.4	3.27	0.39	9.93 J	0.202	13.2	2.1	0.219	9.5 J	0.136	14.9
Antimony	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161
Arsenic	<0.01	0.0137	<0.00578 UJ	0.0146	0.00864	<0.01	0.0101	<0.00612 UJ	0.0168	0.00826	<0.01	0.00752	<0.00651 UJ	<0.00886 UJ	0.00865
Barium		0.0491	0.171 J	0.0366	0.224		0.0452	0.182 J	0.0316	0.228		0.0354	0.166 J	0.0321	0.233
Cadmium	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854
Calcium	74.4	102	70.6 J	93.9	100	74.9	96.5	73 J	84.4	104	75.8	77.9	70.9 J	81.8	111
Chromium	<0.01	<0.0014	0.0062 J	<0.0014	0.00958	<0.01	<0.0014	0.00603 J	<0.0014	0.0102	<0.01	<0.0014	0.00623 J	<0.0014	0.0113
Cobalt		<0.00136	0.00272 J	<0.00136	0.00415 J		<0.00136	0.00296 J	<0.00136	0.00468 J		<0.00136	0.0029 J	<0.00136	0.00506
Copper	0.005	0.00559 J	0.00693 J	<0.00297 UJ	0.0118	<0.005	0.00177 J	0.00729 J	<0.00737 UJ	0.0158	<0.005	0.00198 J	0.0086 J	<0.00259 UJ	0.0144
Iron	2.11	0.459	6.09 J	0.249 J	8.04	2.28	0.263	6.4 J	0.217 J	8.73	1.44	0.17 J	5.96 J	0.15 J	9.51
Lead	<0.005	0.00274 J	0.00518 J	0.00187 J	0.00749	<0.005	0.00102 J	0.00571 J	0.00578	0.00921	<0.005	0.000788 J	0.00583 J	<0.000733	0.00975
Magnesium	17.9	24.1	15.8 J	21.9	21.6	16.9	23.1	16.2 J	20	20.1	17.3	16.6	15.7 J	19.2	22.1
Manganese	0.091	0.262	0.258 J	0.249	0.332	0.091	0.217	0.272 J	0.204	0.314	0.064	0.112	0.254 J	0.18	0.33
Mercury		<0.000285 UJ	<0.00013 UJ	<0.00013	<0.00013		<0.000138 UJ	<0.00013 UJ	<0.00013	<0.00013		<0.000215 UJ	<0.00013 UJ	<0.00013	<0.00013
Molybdenum		<0.0173 UJ	0.00596 J	0.0191	0.00862		<0.0165 UJ	0.0074 J	0.0179	0.00882		<0.0123 UJ	0.00728 J	0.0153	0.00855
Nickel		<0.00217	0.00721 J	<0.00217	0.0115		<0.00217	0.00724 J	<0.00217	0.0125		<0.00217	0.00686 J	<0.00217	0.0134
Potassium	11.4	14.4	8.81 J	12.8	9.95	10.7	13.6	8.97 J	12	11.7	12.8	14.4	8.97 J	12.4	11.8
Selenium	<0.02	0.00315 J	<0.00108 UJ	0.00251 J	<0.00108	<0.02	0.0012 J	<0.00108 UJ	0.00184 J	<0.00108	<0.02	0.00119 J	<0.00108 UJ	0.00117 J	<0.00108
Sodium	144	507	89.2 J	423	96.6	136	484	90.7 J	435	91.9	220	428	94.8 J	426	94.1
Thallium		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	0.000719 J	<0.000693	<0.000693
Zinc		0.0357	0.0209 J	0.0248 J	0.0309		0.0293	0.0209 J	0.0271	0.0323		0.0513	0.0199 J	0.0267	0.0376
Dissolved Metals (mg/L)															
Aluminum	<0.05					0.061					<0.05				
Antimony	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161	<0.05	<0.00161	<0.00161 UJ	<0.00161	<0.00161
Arsenic	<0.01	<0.0116 UJ	<0.00446 UJ	0.0139	0.00589	<0.01	<0.00952 UJ	<0.00455 UJ	0.0151	0.00603	<0.01	<0.00642 UJ	<0.00545 UJ	<0.00887 UJ	0.00548
Barium		0.0438	0.086 J	0.0333	0.0911		0.0443	0.0899 J	0.0305	0.0931		0.0334	0.0863 J	0.0288	0.0884
Cadmium	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854	<0.005	<0.000854	<0.000854 UJ	<0.000854	<0.000854
Calcium	74					74					75.5				
Chromium	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014	<0.01	<0.0014	<0.0014 UJ	<0.0014	<0.0014
Cobalt		<0.00136	<0.00136 UJ	0.00257 J	0.00302 J		<0.00136	<0.00136 UJ	0.00212 J	0.00389 J		<0.00136	<0.00136 UJ	0.00222 J	0.00381 J
Copper	<0.005	0.00154 J	<0.002 UJ	<0.00311 UJ	<0.002	<0.005	0.00166 J	<0.002 UJ	<0.002	<0.002	<0.005	<0.00115	<0.002 UJ	<0.00343 UJ	<0.002
Iron	0.012	<0.101	<0.101 UJ	<0.101	<0.101	0.042	<0.101	<0.101 UJ	<0.101	<0.101	0.012	<0.101	<0.101 UJ	<0.101	<0.101
Lead	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733	<0.005	<0.000733	<0.000733 UJ	<0.000733	<0.000733
Magnesium	16.3					16.3					17				
Manganese	0.006					0.007					0.009				
Mercury		<0.000172 UJ	<0.00013 UJ	<0.00013	<0.00013		<0.00013	<0.00013 UJ	<0.00013	<0.00013		<0.00021 UJ	<0.00013 UJ	<0.00013	<0.00013
Molybdenum		0.0184	0.0067 J	0.0197	<0.00837 UJ		0.0167	0.00717 J	0.0183	<0.00862 UJ		0.0132	0.00841 J	0.0146	<0.00815 UJ
Nickel		<0.00217	<0.00217 UJ	<0.00217	<0.00217		<0.00217	<0.00217 UJ	<0.00217	<0.00217		<0.00217	<0.00217 UJ	<0.00217	<0.00217
Potassium	9.75					9.58					11.9				
Selenium	<0.02	0.0029 J	<0.00108 UJ	0.00233 J	<0.00108	<0.02	<0.00108	<0.00108 UJ	0.00144 J	<0.00108	<0.02	<0.00108	<0.00108 UJ	<0.00108	<0.00108
Sodium	141					132					215				
Thallium		<0.000693	<0.000693 UJ	0.000801 J	<0.000693		<0.000693	<0.000693 UJ	<0.000693	<0.000693		<0.000693	0.00131 J	<0.000693	<0.000693
Zinc		<0.0306 UJ	<0.00355 UJ	0.0224 J	<0.00355		<0.0459 UJ	<0.00355 UJ	0.0251	<0.00355		<0.039 UJ	<0.00355 UJ	0.0323	<0.00355
Water Quality Parameters (mg/L)															
Chloride	105	425 J	88.1 J	512	100	107	413 J	87.3 J	497	96.7	184	358 J	93.1 J	480	97.4
Fluoride	0.6	<0.891 UJ	0.603 J	1.23	0.823	0.58	<1.03 UJ	0.618 J	1.21	0.851	0.69	<0.809 UJ	0.665 J	1.11	0.872
Nitrate	1.11		<0.206 UJ			0.72		<0.206 UJ			4.53		0.928 J		
Nitrate + Nitrite		3.9	<0.4 UJ	9.19	1.24		3.96	<0.4 UJ	9.45	1.08		6.28	0.928 J	10	1.07
Nitrite	<0.5		<0.4 UJ			<0.5		<0.4 UJ			<0.5		<0.4 UJ		
Sulfate	198	498	140 J	588	157 J	187	473	139 J	565	153 J	261	396	146 J	538	153 J
Sulfide	<0.1	<0.029 UJ	<0.0131 UJ	<0.019 UJ	<0.0131	<0.1	<0.036 UJ	<0.0131 UJ	<0.021 UJ	<0.0131	<0.1	<0.032 UJ	0.037 J	<0.023 UJ	<0.0131
Total Alkalinity		191	155 J	188	142		203	158 J	176	150		172	172 J	164	146
Total Dissolved Solids	746	1880	539 J	1560	572	768	1760	554 J	1870	555	970	1610	600 J	1830	550
Total Organic Carbon	4.13	23 J	9.16 J	5.57	3.17	3.94	27.8 J	8.36 J	5.48	3.19	4.69	<10.6 UJ	7.86 J	5.21	3.21
Total Suspended Solids	91	26	320 J	23.6	492	101	14	336 J	39.2	510	65	13.6	288 J	12	554

Notes:
mg/L = milligrams per liter

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 I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 1/7/1991	SEP-1 2/3/1991	SEP-1 2/7/1991	SEP-1 2/11/1991	SEP-1 2/13/1991	SEP-1 2/15/1991	SEP-1 2/18/1991	SEP-1 3/4/1991	SEP-1 3/11/1991	SEP-1 3/18/1991
Total Metals (mg/L)										
Barium	<0.1									
Chromium	<0.005									
Iron	0.3									
Manganese	0.08									
Mercury	<0.0005									
Silver	<0.005									
Dissolved Metals (mg/L)										
Barium	<0.1									
Chromium	<0.005									
Iron	<0.03									
Manganese	0.03									
Silver	<0.005									
Water Quality Parameters										
pH (SU)								8.4		
Specific Conductivity (umhos/cm)								1135		
Volatile Organic Compounds (mg/L)										
Benzene		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.02	<0.002
Ethylbenzene		<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes		<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<1**	**3**	**<1**		**<2**	**<2**	**<2**	**<2**	**<2**	**<2**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 4/16/1991	SEP-1 5/2/1991	SEP-1 5/15/1991	SEP-1 6/13/1991	SEP-1 6/28/1991	SEP-1 7/11/1991	SEP-1 7/24/1991	SEP-1 9/5/1991	SEP-1 9/19/1991	SEP-1 11/26/1991
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	0.003	<0.005	0.0001	<0.002	<0.002	<0.002	0.009	<0.002	<0.002	<0.002
Ethylbenzene	<0.002	<0.005	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene	0.03	<0.005	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.003	<0.005	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<2**	**<1**	**<1**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 12/13/1991	SEP-1 12/26/1991	SEP-2 2/15/1990	SEP-2 2/16/1990	SEP-2 2/17/1990	SEP-2 2/18/1990	SEP-2 2/19/1990	SEP-2 2/20/1990	SEP-2 2/21/1990	SEP-2 2/22/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	<0.002	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Ethylbenzene	<0.002	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Toluene	<0.002	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Total Xylenes	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<2**	**<2**	**0.1**	**<0.1**	**0.1**	**0.3**	**<0.1**	**<0.1**	**0.5**	**<0.5**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-2 2/27/1990	SEP-2 2/28/1990	SEP-2 3/1/1990	SEP-2 3/2/1990	SEP-2 3/3/1990	SEP-2 3/4/1990	SEP-2 3/6/1990	SEP-2 3/9/1990	SEP-2 3/15/1990	SEP-2 3/22/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-2 3/26/1990	SEP-2 4/2/1990	SEP-2 4/16/1990	SEP-2 4/20/1990	SEP-2 5/3/1990	SEP-2 5/11/1990	SEP-2 5/16/1990	SEP-2 5/30/1990	SEP-3 2/12/1990	SEP-3 2/15/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene									<0.0005	<0.0005
Ethylbenzene									<0.0005	<0.0005
Toluene									<0.0005	<0.0005
Total Xylenes									<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.1**	**0.7**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-3 2/16/1990	SEP-3 2/17/1990	SEP-3 2/18/1990	SEP-3 2/19/1990	SEP-3 2/20/1990	SEP-3 2/21/1990	SEP-3 2/22/1990	SEP-3 2/24/1990	SEP-3 3/9/1990	SEP-3 10/30/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001		
Ethylbenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001		
Toluene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001		
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**0.2**	**0.2**	**0.3**	**<0.1**	**0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-3 1/7/1991	SEP-3 2/5/1991	SEP-3 2/11/1991	SEP-3 2/13/1991	SEP-3 2/15/1991	SEP-3 2/18/1991	SEP-3 3/4/1991	SEP-3 3/11/1991	SEP-3 3/18/1991	SEP-3 4/16/1991
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene		<0.002	<0.002	<0.002	<0.002	<0.002	0.01	0.02	<0.002	<0.002
Ethylbenzene		<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes		<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<1**	**<1**	**4**	**<2**	**<2**	**<2**	**<2**	**<2**		**<2**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-3 5/2/1991	SEP-3 5/15/1991	SEP-3 6/13/1991	SEP-3 6/28/1991	SEP-3 7/11/1991	SEP-3 7/24/1991	SEP-3 9/5/1991	SEP-3 9/19/1991	SEP-3 11/26/1991	SEP-3 12/13/1991
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	<0.005	0.03	<0.002	<0.002	<0.002	0.007	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<2**		**2**	**<2**	**<2**		**<2**	**<2**	**<2**	**<2**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-3 12/26/1991	SEP-4 2/15/1990	SEP-4 2/16/1990	SEP-4 2/17/1990	SEP-4 2/18/1990	SEP-4 2/19/1990	SEP-4 2/20/1990	SEP-4 2/21/1990	SEP-4 2/22/1990	SEP-4 2/24/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Ethylbenzene	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Toluene	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Total Xylenes	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<2**	**<0.1**	**<0.1**	**<0.1**		**<0.1**	**<0.1**	**<0.5**	**<0.5**	**<0.5**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-4 2/26/1990	SEP-4 2/27/1990	SEP-4 2/28/1990	SEP-4 3/1/1990	SEP-4 3/2/1990	SEP-4 3/3/1990	SEP-4 3/4/1990	SEP-4 3/6/1990	SEP-4 3/9/1990	SEP-4 3/15/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	<0.001									
Ethylbenzene	<0.001									
Toluene	<0.001									
Total Xylenes	<0.001									
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<0.5**	**0.7**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-4 3/22/1990	SEP-4 3/26/1990	SEP-4 4/2/1990	SEP-4 4/16/1990	SEP-4 4/20/1990	SEP-4 5/3/1990	SEP-4 5/11/1990	SEP-4 5/16/1990	SEP-4 5/30/1990	SEP-4 10/31/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-4 1/7/1991	SEP-5 2/15/1990	SEP-5 2/16/1990	SEP-5 2/17/1990	SEP-5 2/18/1990	SEP-5 2/19/1990	SEP-5 2/20/1990	SEP-5 2/21/1990	SEP-5 2/22/1990	SEP-6 2/26/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene		<0.0005	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	<0.001	<0.001	<0.001
Ethylbenzene		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Toluene		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Total Xylenes		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<1**	**0.2**	**0.1**	**<0.1**	**0.2**	**<0.1**	**0.3**	**<0.5**	**<0.5**	**<0.5**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-6 2/27/1990	SEP-6 3/1/1990	SEP-6 3/2/1990	SEP-6 3/3/1990	SEP-6 3/5/1990	SEP-6 3/6/1990	SEP-6 3/9/1990	SEP-6 3/15/1990	SEP-6 3/22/1990	SEP-6 3/26/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene										
Ethylbenzene										
Toluene										
Total Xylenes										
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-6 4/2/1990	SEP-6 4/16/1990	SEP-6 5/3/1990	SEP-6 5/11/1990	SEP-6 5/16/1990	SEP-6 5/30/1990	SEP-6 10/27/1990	SEP-6 10/30/1990	SEP-6 1/7/1991	SEP-6 2/5/1991
Total Metals (mg/L)										
Barium									<0.1	
Chromium									<0.005	
Iron									0.09	
Manganese									0.4	
Mercury									<0.0005	
Silver									<0.005	
Dissolved Metals (mg/L)										
Barium									<0.1	
Chromium									<0.005	
Iron									<0.03	
Manganese									0.3	
Silver									<0.005	
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene										<0.002
Ethylbenzene										<0.004
Toluene										<0.002
Total Xylenes										<0.003
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**	**<1**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-6 2/7/1991	SEP-6 2/11/1991	SEP-6 2/13/1991	SEP-6 2/18/1991	SEP-6 3/4/1991	SEP-6 3/11/1991	SEP-6 3/18/1991	SEP-6 4/16/1991	SEP-6 5/2/1991	SEP-6 5/15/1991
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	<0.002	<0.002	<0.002	<0.002	0.01	0.02	<0.002	<0.002	<0.005	0.03
Ethylbenzene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002
Toluene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002
Total Xylenes	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<1**	**<1**	**<2**	**<2**	**<2**	**<2**	**<2**		**<1**	**3**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-6 6/13/1991	SEP-6 6/28/1991	SEP-6 7/11/1991	SEP-6 7/24/1991	SEP-6 9/5/1991	SEP-6 9/19/1991	SEP-6 11/26/1991	SEP-6 12/13/1991	SEP-6 12/26/1991	SEP-7 2/12/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	0.005	<0.002	<0.002	0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005
Ethylbenzene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005
Toluene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005
Total Xylenes	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<0.1**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-7 2/15/1990	SEP-7 2/16/1990	SEP-7 2/17/1990	SEP-7 2/18/1990	SEP-7 2/19/1990	SEP-7 2/20/1990	SEP-7 2/21/1990	SEP-7 2/22/1990	SEP-7 3/15/1990	SEP-7 3/22/1990
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001		
Ethylbenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001		
Toluene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001		
Total Xylenes	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<0.1**	**<0.1**	**<0.1**	**0.1**	**<0.1**	**<0.1**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-7 3/26/1990	SEP-7 4/2/1990	SEP-7 4/16/1990	SEP-7 4/20/1990	SEP-7 5/16/1990	SEP-7 5/30/1990	SEP-7 10/30/1990	SEP-7 1/7/1991	SEP-8 1/7/1991	SEP-8 2/5/1991
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene										<0.002
Ethylbenzene										<0.004
Toluene										<0.002
Total Xylenes										<0.003
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**1.1**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**	**<1**	**<1**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-8 2/7/1991	SEP-8 2/11/1991	SEP-8 2/13/1991	SEP-8 2/18/1991	SEP-8 3/4/1991	SEP-8 3/11/1991	SEP-8 3/18/1991	SEP-8 4/16/1991	SEP-8 5/2/1991	SEP-8 5/15/1991
Total Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Mercury										
Silver										
Dissolved Metals (mg/L)										
Barium										
Chromium										
Iron										
Manganese										
Silver										
Water Quality Parameters										
pH (SU)										
Specific Conductivity (umhos/cm)										
Volatile Organic Compounds (mg/L)										
Benzene	<0.002	0.003	<0.002	<0.002	0.0001	<0.002	<0.002	0.02	<0.005	0.01
Ethylbenzene	<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	0.003	<0.005	<0.002
Toluene	<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	0.1	<0.005	<0.002
Total Xylenes	<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	0.02	<0.005	<0.002
Petroleum Hydrocarbons (mg/L)										
Total Petroleum Hydrocarbons	**<1**	**<1**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<1**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): February 1990 to December 1991

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-8 6/13/1991	SEP-8 6/28/1991	SEP-8 7/11/1991	SEP-8 7/24/1991	SEP-8 9/5/1991	SEP-8 9/19/1991	SEP-9 1/29/1991
Total Metals (mg/L)							
Barium							
Chromium							
Iron							
Manganese							
Mercury							
Silver							
Dissolved Metals (mg/L)							
Barium							
Chromium							
Iron							
Manganese							
Silver							
Water Quality Parameters							
pH (SU)							
Specific Conductivity (umhos/cm)							
Volatile Organic Compounds (mg/L)							
Benzene	0.0001	<0.002	<0.002	0.02	<0.002	<0.002	<0.002
Ethylbenzene	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)							
Total Petroleum Hydrocarbons	**<2**		**<2**		**<2**	**<2**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): January 1992 to July 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 1/9/1992	SEP-1 1/23/1992	SEP-1 1/28/1992	SEP-1 2/13/1992	SEP-1 2/27/1992	SEP-1 3/12/1992	SEP-1 3/27/1992	SEP-1 4/30/1992	SEP-1 5/28/1992	SEP-1 6/25/1992	SEP-1 7/29/1992	SEP-1 8/26/1992	SEP-1 10/30/1992	SEP-1 2/18/1993
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.005
Ethylbenzene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.005
m-Xylene														
o-Xylene														
p-Xylene														
Toluene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.005
Total Xylenes	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.005
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<1**	**<1**	**<1**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): January 1992 to July 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 3/25/1993	SEP-1 7/29/1993	SEP-3 1/9/1992	SEP-3 1/23/1992	SEP-3 1/28/1992	SEP-3 2/13/1992	SEP-3 2/27/1992	SEP-3 3/12/1992	SEP-3 3/27/1992	SEP-3 4/30/1992	SEP-3 5/28/1992	SEP-3 6/25/1992	SEP-3 7/29/1992	SEP-3 8/26/1992
Volatile Organic Compounds (mg/L)														
Benzene	<0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	<0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
m-Xylene		<0.001												
o-Xylene		<0.001												
p-Xylene		<0.001												
Toluene	0.02	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes	<0.005		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<1**	**0.2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<1**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): January 1992 to July 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-3 10/30/1992	SEP-3 2/18/1993	SEP-3 3/25/1993	SEP-3 7/29/1993	SEP-6 1/9/1992	SEP-6 1/23/1992	SEP-6 1/28/1992	SEP-6 2/13/1992	SEP-6 2/27/1992	SEP-6 3/12/1992	SEP-6 3/27/1992	SEP-6 4/30/1992	SEP-6 5/28/1992	SEP-6 6/25/1992
Volatile Organic Compounds (mg/L)														
Benzene		<0.005	<0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene		<0.005	<0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
m-Xylene				<0.001										
o-Xylene				<0.001										
p-Xylene				<0.001										
Toluene		<0.005	0.01	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes		<0.005	<0.005		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<1**	**4**	**<1**	**<0.2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**

Table I-4
Surface Water Sampling Results (ASARCO): January 1992 to July 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-6 7/29/1992	SEP-6 8/26/1992	SEP-6 10/30/1992	SEP-6 2/18/1993	SEP-6 3/25/1993	SEP-6 7/29/1993	SEP-8 1/23/1992	SEP-8 1/28/1992	SEP-8 2/13/1992	SEP-8 2/27/1992	SEP-8 3/12/1992	SEP-8 3/27/1992	SEP-8 4/30/1992	SEP-8 5/28/1992
Volatile Organic Compounds (mg/L)														
Benzene	<0.002	<0.002		<0.005	<0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	<0.002	<0.002		<0.005	<0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
m-Xylene						<0.001								
o-Xylene						<0.001								
p-Xylene						<0.001								
Toluene	<0.002	<0.002		<0.005	<0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes	<0.002	<0.002		<0.005	<0.005		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<1**	**<1**	**<1**	**1**	**<1**	**<0.2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**	**<2**

Table I-4
Surface Water Sampling Results (ASARCO): January 1992 to July 1993

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-8 6/25/1992	SEP-8 7/29/1992	SEP-8 8/26/1992	SEP-8 10/30/1992	SEP-8 2/18/1993	SEP-8 3/25/1993	SEP-8 7/29/1993
Volatile Organic Compounds (mg/L)							
Benzene	<0.002	<0.002	<0.002		<0.005	<0.005	<0.001
Ethylbenzene	<0.002	<0.002	<0.002		<0.005	<0.005	<0.001
m-Xylene							<0.001
o-Xylene							<0.001
p-Xylene							<0.001
Toluene	<0.002	<0.002	<0.002		<0.005	<0.005	<0.001
Total Xylenes	<0.002	<0.002	<0.002		<0.005	<0.005	
Petroleum Hydrocarbons (mg/L)							
Total Petroleum Hydrocarbons	**<2**	**<1**	**<1**	**<1**	**1**	**<1**	**<0.2**

Table I-4
Surface Water Sampling Results (ASARCO): January 1994 to November 1998

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 1/19/1994	SEP-1 5/27/1994	SEP-1 8/4/1994	SEP-1 11/8/1994	SEP-1 2/8/1995	SEP-1 5/16/1995	SEP-1 7/26/1995	SEP-1 8/15/1995	SEP-1 11/14/1995	SEP-1 2/21/1996	SEP-1 5/6/1996	SEP-1 8/6/1996	SEP-1 5/14/1997	SEP-1 8/18/1997
Total Metals (mg/L)														
Arsenic														0.006
Cadmium														<0.005
Chromium														<0.01
Copper														<0.03
Iron														4.7
Lead														0.005
Selenium														<0.005
Zinc														0.04
Dissolved Metals (mg/L)														
Arsenic														<0.005
Cadmium														<0.005
Calcium														66
Chromium														<0.01
Copper														<0.03
Iron														<0.1
Lead														<0.003
Magnesium														15
Potassium														8
Selenium														<0.005
Sodium														115
Zinc														0.02
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity														210
Carbonate Alkalinity														2
Chloride														75
Fluoride														0.7
Nitrate + Nitrite														0.4
pH (SU)														8.4
Specific Conductivity (umhos/cm)														896
Sulfate														157
Total Alkalinity														176
Total Dissolved Solids														594
Total Suspended Solids														257
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene	<0.001	<0.001			<0.001									
o-Xylene	<0.001	<0.001			<0.001									
p-Xylene	<0.001	<0.001			<0.001									
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes			<0.0003	<0.001		<0.0003	<0.3	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<0.2**	**<0.2**	**<1**	**0.8**	**<0.0002**	**<1**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): January 1994 to November 1998

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 11/10/1997	SEP-1 2/13/1998	SEP-1 5/6/1998	SEP-1 5/20/1998	SEP-1 8/11/1998	SEP-1 11/18/1998	SEP-10 8/15/1997	SEP-10 11/19/1997	SEP-10 2/13/1998	SEP-10 5/19/1998	SEP-10 8/18/1998	SEP-10 11/18/1998	SEP-11 8/15/1997	SEP-11 11/10/1997
Total Metals (mg/L)														
Arsenic	0.01	0.02		0.01	0.005	0.007	0.005	0.02	0.008	<0.005	<0.005	0.007	0.005	0.01
Cadmium	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03
Iron	0.4	0.6		2.2	4.4	0.3 J	5.9	0.3	1.6	2.1	5.4	0.3 J	5	0.2
Lead	0.005	<0.003 UJ		<0.004	0.005	<0.003	0.007	0.01	<0.003 UJ	0.004	0.006	<0.003	0.006	0.005
Selenium	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.02	0.02 J		0.02	0.03	<0.02	0.04	0.02	0.03 J	0.03	0.03	<0.02	0.04	<0.02
Dissolved Metals (mg/L)														
Arsenic	0.009	0.02		0.007	0.007	0.007	<0.005	0.007	0.006	<0.005	0.005	0.007	<0.005	0.009
Cadmium	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	100	83		70	65	100	60	103	82	74	64	100	60	104
Chromium	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003		<0.004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	24	18		17	14	24	14	25	17	17	14	23	14	25
Potassium	12	7.9		7	6	12	8.2	13	7.4	8	9	12	8.3	9.2
Selenium	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	272	232		124	117	292	100	278	228	130	113	278	101	272
Zinc	<0.02	<0.02		<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	275	204		224	214	253	203	278	229	201	207	259	198	282
Carbonate Alkalinity	<1	11		<1	5 J	5	2	12	<1	<1 UJ	11	5	<1	<1
Chloride	249	178		103	85	249	69	255	175	112	85	243	73	246
Fluoride	0.8	0.7		0.7	0.6	0.7	0.6	0.8	0.7	0.7	0.6	0.7	0.6	0.7
Nitrate + Nitrite	2.7	3		0.2	0.3	2.6	0.4	3	3	0.2	0.2	2.3	0.4	2.2
pH (SU)	8.3	8.5		8.2	8.5	8.4	8.4	8.5	8.3	8.3	8.7	8.4	8.1	8.3
Specific Conductivity (umhos/cm)	1924	1479		1083	976	1899	835	1970	1474	1066	969	1894	814	1933
Sulfate	412	285		224	195	441	145	436	264	229	207	439	140	415
Total Alkalinity							170						162	
Total Dissolved Solids	1290	959		649	622	1269	576	1337	960	650	608	1268	526	1258
Total Suspended Solids	38	47		102	209	12	286	16	80	102	190	18	432	23
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<0.001	<0.001		<0.001									
Ethylbenzene	<0.001	<0.001	<0.001		<0.001									
m-Xylene														
o-Xylene														
p-Xylene														
Toluene	<0.001	<0.001	<0.001		<0.001									
Total Xylenes	<0.001	<0.001	<0.001		<0.001									
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<1**	**<1**	**<1**		**<5**									

Table I-4
Surface Water Sampling Results (ASARCO): January 1994 to November 1998

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Parameter	SEP-11 2/13/1998	SEP-11 5/19/1998	SEP-11 8/18/1998	SEP-11 11/18/1998	SEP-12 8/15/1997	SEP-12 11/10/1997	SEP-12 2/13/1998	SEP-12 5/19/1998	SEP-12 8/20/1998	SEP-12 11/18/1998	SEP-13 8/15/1997	SEP-13 11/10/1997	SEP-13 2/13/1998	SEP-13 5/19/1998
Total Metals (mg/L)														
Arsenic	0.008	<0.005	<0.005	0.007	0.005	0.01	0.008	0.005	0.006	0.007	0.005	0.01	0.008	0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.4	2.2	5.6	0.5 J	5.2	0.5	1.6	2.1	4.2	0.3 J	5.4	0.6	1.6	1.6
Lead	0.01 J	0.003	0.006	0.003	0.009	0.004	<0.003 UJ	0.005	0.007	<0.003	0.006	0.003	<0.003 UJ	0.01
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.03 J	0.03	0.03	0.02	0.04	<0.02	0.03 J	0.03	0.02	<0.02	0.03	<0.02	<0.02	0.03
Dissolved Metals (mg/L)														
Arsenic	0.006	<0.005	0.006	0.007	<0.005	0.009	0.006	<0.005	0.005	0.006	<0.005	0.009	0.005	<0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	85	72	65	102	61	105	85	71	60	105	61	107	88	71
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	18	17	15	24	14	26	18	17	14	25	14	27	19	17
Potassium	8.2	9.4	9.7	12	8.2	11	7.5	14	8.2	12	8.3	9.7	8	8.8
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	225	126	115	276	101	272	211	127	112	277	102	286	209	129
Zinc	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	224	178	207	261	215	285	223	185	224	266	220	287	234	198
Carbonate Alkalinity	7	17 J	11	5	<1	<1	10	10 J	2	5	<1	<1	7	10 J
Chloride	178	110	86	246	68	254	176	105	81	232	76	249	166	109
Fluoride	0.7	0.7	0.6	0.7	0.6	0.8	0.7	0.7	0.6	0.7	0.7	0.8	0.7	0.7
Nitrate + Nitrite	2.5	0.2	0.1	2	0.4	2.2	1.8	0.2	0.3	1.9	0.4	2.1	1.5	0.2
pH (SU)	8.4	8.5	8.7	8.5	8.3	8.3	8.4	8.4	8.4	8.4	8.2	8.3	8.4	8.5
Specific Conductivity (umhos/cm)	1447	1071	968	1877	850	1970	1422	1064	952	1877	854	1993	1394	1051
Sulfate	259	229	203	438	134	427	253	216	180	431	141	422	246	221
Total Alkalinity					176						180			
Total Dissolved Solids	949	660	623	1219	590	1323	911	646	644	1283	554	1304	911	621
Total Suspended Solids	91	104	202	23	224	31	97	99	204	20	305	38	95	79
Volatile Organic Compounds (mg/L)														
Benzene														
Ethylbenzene														
m-Xylene														
o-Xylene														
p-Xylene														
Toluene														
Total Xylenes														
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons														

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Parameter	SEP-13 8/20/1998	SEP-13 11/18/1998	SEP-14 11/12/1998	SEP-2 8/15/1997	SEP-2 11/10/1997	SEP-2 2/13/1998	SEP-2 5/19/1998	SEP-2 8/18/1998	SEP-2 11/18/1998	SEP-3 1/19/1994	SEP-3 5/27/1994	SEP-3 8/4/1994	SEP-3 11/8/1994	SEP-3 2/8/1995
Total Metals (mg/L)														
Arsenic	0.005	0.007	0.06	0.005	0.01	0.009	<0.005	<0.005	0.007					
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005					
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
Copper	<0.03	<0.03	0.2	<0.03	0.03	<0.03	<0.03	<0.03	<0.03					
Iron	4.6	0.3 J	2.8	3.9	0.4	1.6	2.1	5.3	0.3 J					
Lead	0.005	<0.003	0.05	0.006	0.01	0.004 J	0.003	0.007	<0.003					
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005					
Zinc	0.02	<0.02	0.2	0.03	0.03	0.02 J	0.03	0.02	<0.02					
Dissolved Metals (mg/L)														
Arsenic	0.005	0.007	0.06	<0.005	0.009	0.006	<0.005	<0.005	0.007					
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005					
Calcium	61	102	24	61	104	84	72	66	102					
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
Copper	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03					
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Lead	<0.003	<0.003	0.004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003					
Magnesium	14	24	4	14	25	18	17	15	24					
Potassium	7.5	12	<5	8.2	7.7	7.5	8.4	9.3	12					
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005					
Sodium	111	273	22	102	277	217	128	116	275					
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02					
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	223	266	77	210	271	231	192	206	264					
Carbonate Alkalinity	2	5	10	<1	<1	7	9 J	11	5					
Chloride	80	238	7.6	75	248	171	108	84	234					
Fluoride	0.6	0.7	0.3	0.6	0.8	0.7	0.7	0.6	0.7					
Nitrate + Nitrite	0.3	1.9	<0.1	0.4	2.3	1.8	0.2	0.1	2.1					
pH (SU)	8.4	8.5	8.9	8.3	8.3	8.4	8.5	8.7	8.5					
Specific Conductivity (umhos/cm)	954	1884	272	842	1950	1440	1068	966	1877					
Sulfate	179	443	65	131	415	256	233	204	436					
Total Alkalinity				172										
Total Dissolved Solids	671	1259	182	585	1289	961	667	621	1269					
Total Suspended Solids	234	19	50 J	180	25	95	92	202	20					
Volatile Organic Compounds (mg/L)														
Benzene										<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene										<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene										<0.001	<0.001			<0.001
o-Xylene										<0.001	<0.001			<0.001
p-Xylene										<0.001	<0.001			<0.001
Toluene										<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes												<0.0003	<0.001	
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons										**<0.2**	**<0.2**	**<1**	**0.8**	**<0.0002**

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Parameter	SEP-3 5/16/1995	SEP-3 7/26/1995	SEP-3 8/15/1995	SEP-3 11/14/1995	SEP-3 2/21/1996	SEP-3 5/6/1996	SEP-3 8/6/1996	SEP-3 5/14/1997	SEP-3 8/18/1997	SEP-3 11/19/1997	SEP-3 2/13/1998	SEP-3 5/6/1998	SEP-3 5/20/1998	SEP-3 8/11/1998
Total Metals (mg/L)														
Arsenic									0.005	1.6	0.5		0.008	<0.005
Cadmium									<0.005	0.02	0.008		<0.005	<0.005
Chromium									<0.01	<0.01	<0.01		<0.01	<0.01
Copper									<0.03	0.04	<0.03		<0.03	<0.03
Iron									4.4	<0.1	<0.1		2.3	5.3
Lead									0.006	0.02	0.006 J		0.004	0.004
Selenium									<0.005	0.4	0.1		<0.005	<0.005
Zinc									0.03	0.04	0.03 J		0.03	0.02
Dissolved Metals (mg/L)														
Arsenic									<0.005	0.8	0.5		0.006	0.005
Cadmium									<0.005	0.008	<0.005		<0.005	<0.005
Calcium									66	225	216		70	62
Chromium									<0.01	<0.01	<0.01		<0.01	<0.01
Copper									<0.03	<0.03	<0.03		<0.03	<0.03
Iron									<0.1	<0.1	<0.1		<0.1	<0.1
Lead									<0.003	<0.003	<0.003		<0.004	<0.003
Magnesium									15	94	89		17	14
Potassium									8.2	53	54		8.1	7.5
Selenium									<0.005	0.2	0.1		<0.005	<0.005
Sodium									124	943	965		126	112
Zinc									0.02	<0.02	0.02		<0.02	<0.02
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity									205	239	342		218	217
Carbonate Alkalinity									2	<1	<1		<1	7 J
Chloride									82	597	679		107	79
Fluoride									0.7	2.1	1.8		0.7	0.6
Nitrate + Nitrite									0.6	12	8.6		0.3	0.3
pH (SU)									8.4	7.6	8.1		8.2	8.5
Specific Conductivity (umhos/cm)									959	5250	5410		1092	977
Sulfate									182	1839	1832		226	200
Total Alkalinity									172					
Total Dissolved Solids									633	3954	3979		661	663
Total Suspended Solids									229	14	21		98	230
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
Ethylbenzene	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
m-Xylene														
o-Xylene														
p-Xylene														
Toluene	<0.001	<1	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
Total Xylenes	<0.0003	<0.3	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<1**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**		**6**

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Parameter	SEP-4 8/15/1997	SEP-4 11/10/1997	SEP-4 2/13/1998	SEP-4 5/19/1998	SEP-4 8/20/1998	SEP-4 11/18/1998	SEP-6 1/19/1994	SEP-6 5/27/1994	SEP-6 8/4/1994	SEP-6 11/8/1994	SEP-6 2/8/1995	SEP-6 5/16/1995	SEP-6 7/26/1995	SEP-6 8/15/1995
Total Metals (mg/L)														
Arsenic	0.005	0.01	0.01	0.006	0.006	0.008								
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005								
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01								
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03								
Iron	5.6	0.4	1.6	1.8	4.8	0.4 J								
Lead	0.008	0.007	<0.003 UJ	0.005	0.006	0.003								
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005								
Zinc	0.04	0.02	<0.02	0.04	0.03	<0.02								
Dissolved Metals (mg/L)														
Arsenic	<0.005	0.009	0.007	<0.005	<0.005	0.007								
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005								
Calcium	62	107	86	72	60	105								
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01								
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03								
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1								
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003								
Magnesium	14	26	19	17	14	25								
Potassium	8.1	8	8	8.7	7.8	12								
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005								
Sodium	104	275	203	120	111	282								
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02								
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	212	299	235	192	222	266								
Carbonate Alkalinity	2	<1	7	8 J	2	5								
Chloride	74	249	160	110	82	234								
Fluoride	0.7	0.8	0.7	0.7	0.6	0.7								
Nitrate + Nitrite	0.4	1.7	1.3	0.2	0.3	1.9								
pH (SU)	8.4	7.9	8.4	8.4	8.4	8.5								
Specific Conductivity (umhos/cm)	858	1952	1388	1054	954	1893								
Sulfate	149	424	246	217	176	418								
Total Alkalinity	178													
Total Dissolved Solids	571	1289	878	640	642	1272								
Total Suspended Solids	321	31	106	82	198	25								
Volatile Organic Compounds (mg/L)														
Benzene							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001
Ethylbenzene							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001
m-Xylene							<0.001	<0.001			<0.001			
o-Xylene							<0.001	<0.001			<0.001			
p-Xylene							<0.001	<0.001			<0.001			
Toluene							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001
Total Xylenes									<0.0003	<0.001		<0.0003	<0.3	<0.001
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons							**<0.2**	**<0.2**	**<1**	**0.8**	**<0.0002**	**<1**	**<0.5**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): January 1994 to November 1998

Revised Supplemental Remedial Investgation Report
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Parameter	SEP-6 11/14/1995	SEP-6 2/21/1996	SEP-6 5/6/1996	SEP-6 8/6/1996	SEP-6 5/14/1997	SEP-6 8/18/1997	SEP-6 11/19/1997	SEP-6 2/13/1998	SEP-6 5/6/1998	SEP-6 8/11/1998	SEP-7 1/20/1994	SEP-7 5/27/1994	SEP-7 8/4/1994	SEP-7 11/8/1994
Total Metals (mg/L)														
Arsenic						0.005								
Cadmium						<0.005								
Chromium						0.03								
Copper						<0.03								
Iron						4.5								
Lead						0.006								
Selenium						<0.005								
Zinc						0.04								
Dissolved Metals (mg/L)														
Arsenic						<0.005								
Cadmium						<0.005								
Calcium						65								
Chromium						<0.01								
Copper						<0.03								
Iron						<0.1								
Lead						<0.003								
Magnesium						15								
Potassium						8.3								
Selenium						<0.005								
Sodium						121								
Zinc						<0.02								
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity						207								
Carbonate Alkalinity						2								
Chloride						85								
Fluoride						0.7								
Nitrate + Nitrite						0.8								
pH (SU)						8.4								
Specific Conductivity (umhos/cm)						961								
Sulfate						176								
Total Alkalinity						174								
Total Dissolved Solids						643								
Total Suspended Solids						178								
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene											<0.001	<0.001		
o-Xylene											<0.001	<0.001		
p-Xylene											<0.001	<0.001		
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.0003	<0.001
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<5**	**<0.2**	**<0.2**	**<1**	**0.7**

Table I-4
Surface Water Sampling Results (ASARCO): January 1994 to November 1998

Revised Supplemental Remedial Investgation Report
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Parameter	SEP-7 2/8/1995	SEP-7 5/16/1995	SEP-7 7/26/1995	SEP-7 8/15/1995	SEP-7 2/21/1996	SEP-7 5/6/1996	SEP-7 8/6/1996	SEP-7 5/14/1997	SEP-7 8/15/1997	SEP-7 8/18/1997	SEP-7 11/10/1997	SEP-7 2/13/1998	SEP-7 5/6/1998	SEP-7 5/20/1998
Total Metals (mg/L)														
Arsenic									0.005		0.8	0.6		0.008
Cadmium									<0.005		<0.005	<0.005		<0.005
Chromium									<0.01		<0.01	<0.01		<0.01
Copper									<0.03		0.03	<0.03		<0.03
Iron									4.4		0.1	<0.1		2
Lead									0.008		0.02	<0.003 UJ		<0.004
Selenium									<0.005		0.2	0.1		<0.005
Zinc									0.04		0.07	<0.02		0.02
Dissolved Metals (mg/L)														
Arsenic									<0.005		0.8	0.6		0.007
Cadmium									<0.005		<0.005	<0.005		<0.005
Calcium									62		196	203		71
Chromium									<0.01		<0.01	<0.01		<0.01
Copper									<0.03		<0.03	<0.03		<0.03
Iron									<0.1		<0.1	<0.1		<0.1
Lead									<0.003		<0.003	<0.003		<0.004
Magnesium									15		77	76		17
Potassium									8.4		60	67		6.9
Selenium									<0.005		0.2	0.1		<0.005
Sodium									114		793	748		129
Zinc									<0.02		<0.02	<0.02		<0.02
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity									220		381	388		218
Carbonate Alkalinity									<1		<1	<1		<1
Chloride									81		438	481		107
Fluoride									0.7		2.3	2.1		0.7
Nitrate + Nitrite									0.5		4.1	3.8		0.3
pH (SU)									8.3		8	7.9		8.2
Specific Conductivity (umhos/cm)									910		4660	4580		1095
Sulfate									156		1616	1676		226
Total Alkalinity									180					
Total Dissolved Solids									635		3424	3300		668
Total Suspended Solids									275		13	20		99
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	
Ethylbenzene	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	
m-Xylene	<0.001													
o-Xylene	<0.001													
p-Xylene	<0.001													
Toluene	<0.001	<0.001	<1	<0.001	0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	
Total Xylenes		<0.0003	<0.3	<0.001	<0.001	<0.002	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<0.0002**	**<1**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**		**<1**	**<1**	**<1**	**<1**	

Table I-4
Surface Water Sampling Results (ASARCO): January 1994 to November 1998

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-7 8/11/1998	SEP-8 1/19/1994	SEP-8 5/27/1994	SEP-8 8/4/1994	SEP-8 11/8/1994	SEP-8 2/8/1995	SEP-8 5/16/1995	SEP-8 7/26/1995	SEP-8 8/15/1995	SEP-8 11/14/1995	SEP-8 2/21/1996	SEP-8 5/6/1996	SEP-8 8/6/1996	SEP-8 5/14/1997
Total Metals (mg/L)														
Arsenic	0.005													
Cadmium	<0.005													
Chromium	<0.01													
Copper	<0.03													
Iron	4.9													
Lead	0.004													
Selenium	<0.005													
Zinc	<0.02													
Dissolved Metals (mg/L)														
Arsenic	0.006													
Cadmium	<0.005													
Calcium	66													
Chromium	<0.01													
Copper	<0.03													
Iron	<0.1													
Lead	<0.003													
Magnesium	15													
Potassium	8.1													
Selenium	<0.005													
Sodium	113													
Zinc	<0.02													
Water Quality Parameters (mg/L)														
Bicarbonate Alkalinity	237													
Carbonate Alkalinity	<1 UJ													
Chloride	82													
Fluoride	0.6													
Nitrate + Nitrite	0.2													
pH (SU)	8.3													
Specific Conductivity (umhos/cm)	951													
Sulfate	185													
Total Alkalinity														
Total Dissolved Solids	630													
Total Suspended Solids	242													
Volatile Organic Compounds (mg/L)														
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
m-Xylene		<0.001	<0.001			<0.001								
o-Xylene		<0.001	<0.001			<0.001								
p-Xylene		<0.001	<0.001			<0.001								
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes	<0.001			<0.0003	<0.001		<0.0003	<0.3	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001
Petroleum Hydrocarbons (mg/L)														
Total Petroleum Hydrocarbons	**<5**	**<0.2**	**<0.2**	**<1**	**0.7**	**<0.0002**	**<1**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**

Table I-4
Surface Water Sampling Results (ASARCO): January 1994 to November 1998

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Parameter	SEP-8 8/18/1997	SEP-9 8/15/1997	SEP-9 11/10/1997	SEP-9 2/13/1998	SEP-9 5/19/1998	SEP-9 8/18/1998	SEP-9 11/18/1998
Total Metals (mg/L)							
Arsenic	0.005	0.006	0.01	0.01	0.006	0.005	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	4.3	3.2	0.2	0.6	1.7	4.2	0.2 J
Lead	0.008	0.004	<0.003	<0.003 UJ	0.004	0.009	<0.003
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.03	0.03	0.02	0.03 J	0.04	0.04	0.02
Dissolved Metals (mg/L)							
Arsenic	<0.005	<0.005	0.01	0.009	<0.005	0.006	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	65	64	99	71	71	67	85
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	15	15	23	15	16	15	19
Potassium	8.2	9.5	10	8.9	8.7	10	12
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	121	155	285	272	173	154	310
Zinc	<0.02	0.02	0.03	0.04	0.04	0.02	0.03
Water Quality Parameters (mg/L)							
Bicarbonate Alkalinity	217	212	254	200	195	214	224
Carbonate Alkalinity	<1	<1	<1	<1	8 J	6	<1
Chloride	85	116	248	206	150	115	272
Fluoride	0.7	0.7	0.8	0.7	0.7	0.7	0.8
Nitrate + Nitrite	0.6	2.3	3.7	6.5	2.4	2.5	5.5
pH (SU)	8.3	8.3	8.3	8.2	8.5	8.5	8.3
Specific Conductivity (umhos/cm)	958	1133	1886	1550	1273	1142	1950
Sulfate	190	203	401	286	262	236	442
Total Alkalinity	178	174					
Total Dissolved Solids	677	730	1225	1030	797	712	1298
Total Suspended Solids	11	223	16	44	80	169	7.5
Volatile Organic Compounds (mg/L)							
Benzene	<0.001						
Ethylbenzene	<0.001						
m-Xylene							
o-Xylene							
p-Xylene							
Toluene	<0.001						
Total Xylenes	<0.001						
Petroleum Hydrocarbons (mg/L)							
Total Petroleum Hydrocarbons	**<1**						

Table I-4
Surface Water Sampling Results (ASARCO): February 1999 to December 2002

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Parameter	SEP-1 2/19/1999	SEP-1 5/12/1999	SEP-1 8/6/1999	SEP-1 8/20/1999	SEP-1 11/1/1999	SEP-1 1/31/2000	SEP-1 5/9/2000	SEP-1 8/14/2000	SEP-1 11/10/2000	SEP-1 2/23/2001	SEP-1 5/16/2001	SEP-1 7/31/2001	SEP-1 11/16/2001
Total Metals (mg/L)													
Arsenic	0.007	0.01		<0.005	0.007	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.4	1.7		14	0.2	1	2	6.3	8.7	1.6	3 J	2.4	0.7
Lead	0.005	0.009		0.009	0.006	0.004	0.006	0.005	0.01	<0.003	<0.003	0.004	<0.003
Selenium	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.02	0.03		0.03	0.05 J	0.04	<0.03 UJ	0.04	0.03	<0.03	<0.02	0.02 J	<0.02
Dissolved Metals (mg/L)													
Arsenic	0.006	0.005		<0.005								<0.005	0.005
Cadmium	<0.005	<0.005		<0.005								<0.005	<0.005
Calcium	112	77		60	92	88	86	72	114	66	68	60	113
Chromium	<0.01	<0.01		<0.01								<0.01	<0.01
Copper	<0.03	<0.03		<0.03								<0.03	<0.03
Iron	<0.1	<0.1		<0.1								<0.1	<0.1
Lead	<0.003	<0.003		<0.003								<0.003	<0.003
Magnesium	27	20		12	23	19	19	17	27	15	16	15	28
Potassium	14	10		7.3	9.6	7.6	9.6	9.1	12	7.2	9.1	7.5	11
Selenium	<0.005	<0.005		<0.005								<0.005	<0.005
Sodium	315	140		101	193	190	162	100	218	128	116	125	258
Zinc	0.02	<0.02		<0.02								<0.02 UJ	<0.02
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	289	281 J		217	273	239	215	229	342	244	207	206	283
Carbonate Alkalinity	<1	<1 UJ		6 J	<1	<1	<7	4.8	<1	4.8 J	<1	<1	17 J
Chloride	241	567		64	224	185	109	78	206 J	143	90	105	222
Fluoride	0.8	0.7		0.6	0.7	0.7	<0.7	0.7 J	0.7	0.8	0.7	0.7	0.7
Nitrate + Nitrite	1.5	<0.1 UJ		0.5	<0.9	<1.3	0.4	0.5 J	1.8	0.8	0.5	0.3	1.2
pH (SU)	8.3	8.3		8.4	8.3	8.3	8.4	8.6	8.2	8.4	8.3	8.2	8.5
Specific Conductivity (umhos/cm)	2100	1158 J		894	1800	1402	1108	956	1771	1299	946	1046	1846
Sulfate	325	207		166	379	248	226	187	310	199	207	217	411
Total Alkalinity													
Total Dissolved Solids	1351	698		603	1133	849	697	603	1202	805	606	674	1219
Total Suspended Solids	17	93		565	31	67 J	106	286	311	86	265	153	20
Volatile Organic Compounds (mg/L)													
Benzene	<0.001	<0.001	<0.001		<0.001								
Ethylbenzene	<0.001	<0.001	<0.001		<0.001								
Toluene	<0.001	<0.001	<0.001		<0.001								
Total Xylenes	0.002	<0.001	<0.001		<0.001								
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons	**<5 UJ**	**<5**	**<5**		**<5**								

Table I-4
Surface Water Sampling Results (ASARCO): February 1999 to December 2002

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Parameter	SEP-1 2/22/2002	SEP-1 5/13/2002	SEP-1 8/21/2002	SEP-1 11/13/2002	SEP-10 2/19/1999	SEP-10 5/13/1999	SEP-10 8/20/1999	SEP-10 11/1/1999	SEP-10 2/14/2000	SEP-10 5/10/2000	SEP-10 8/21/2000	SEP-10 11/15/2000	SEP-10 2/28/2001
Total Metals (mg/L)													
Arsenic	0.008	<0.005	0.006	<0.005	0.005	<0.005	<0.005	0.01	0.01	0.009	<0.005	0.02	0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.4	1.7	3.3	0.3	0.8	0.8	15	0.6	0.8 J	1.4	8.1	0.7	2.9
Lead	0.004	0.003	<0.003	<0.003	<0.003	<0.003	0.008	0.008	<0.003	0.005	0.008	<0.003	0.003
Selenium	<0.005	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	0.008	<0.005
Zinc	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	0.05	0.05 J	<0.02	<0.03 UJ	<0.04	0.04	0.02
Dissolved Metals (mg/L)													
Arsenic	0.008	<0.005	0.005	<0.005	0.005	0.005	<0.005						
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005						
Calcium	104	58	60	116	110	77	62	105	108	77	75	103	64
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01						
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03						
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003						
Magnesium	27	15	16	28	27	20	12	29	26	17	18	25	14
Potassium	11	7.2	6.5	9.6	15	8.1	7.2	12	13	9.7	8.7	11	7.3
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005						
Sodium	341	112	128	247	307	135	99	261	294	135	94	257	107
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02						
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	253	215	223	306	293	242	239	282	255	220	226 J	310	233
Carbonate Alkalinity	17	<1	<1	<1	<1	<1	<1 UJ	<1	14.4 J	<1 UJ	10 J	<1	<1
Chloride	332	82	88	235	239	92	67	251	290	94	78	237	117
Fluoride	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.9	0.9	<0.7	0.7	0.9	0.7
Nitrate + Nitrite	3.2	<0.2 UJ	0.3 J	1.3	1.7	<0.1 UJ	0.5	<0.8	1.6	6.1 J	0.6	1.3	0.5 J
pH (SU)	8.6	7.8	7.8	8.1	8.2	8.3	8.2	8.3	8.5	8.3	8.5	8	8.2
Specific Conductivity (umhos/cm)	2360	966	1026	1962	2060	1153	892	2120	2210	1076	927	2000	1074
Sulfate	510	183	202	462	290	204	180	512	382	215 J	172	423	201
Total Alkalinity													
Total Dissolved Solids	1555	589	670	1272	1282	748	592	1342	1458	685	588	1326	675
Total Suspended Solids	15	200	202	13	28	62	481	41	35	75	406	32	154
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

Table I-4
Surface Water Sampling Results (ASARCO): February 1999 to December 2002

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Parameter	SEP-10 5/17/2001	SEP-10 7/31/2001	SEP-10 11/16/2001	SEP-10 2/22/2002	SEP-10 5/14/2002	SEP-10 8/22/2002	SEP-10 12/16/2002	SEP-11 2/19/1999	SEP-11 5/13/1999	SEP-11 8/20/1999	SEP-11 11/2/1999	SEP-11 2/14/2000	SEP-11 5/10/2000
Total Metals (mg/L)													
Arsenic	<0.005	<0.005	0.006	0.01	<0.005	0.007	0.01	<0.005	<0.005	<0.005	0.01	0.01	0.008
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.7	2.7	0.3	0.5	1.5	3.2	0.6	1	1.5	14	0.7 J	0.5 J	1.4
Lead	<0.003	0.005	<0.003	<0.003	<0.003	0.003	<0.003	0.004	<0.003	0.009	0.005	0.01	0.003
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005
Zinc	<0.02	<0.02	<0.02	0.03	<0.02	0.02	<0.02	<0.02	<0.02	0.03	<0.02	0.03	<0.02 UJ
Dissolved Metals (mg/L)													
Arsenic		<0.005	0.007	0.01	<0.005	0.006	0.009	0.005	0.005	<0.005			
Cadmium		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
Calcium	70	61	111	111	62	60	119	112	75	63	106	112	79
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Copper		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
Iron		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
Lead		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
Magnesium	17	15	29	29	15	16	30	28	19	13	28	29	18
Potassium	9.1	9.7	12	11	11	6.9	15	15	7.8	7.3	11	14	10
Selenium		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
Sodium	133	119	285	386	120	128	315	292	140	100	240	315	137
Zinc		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02			
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	215	209	289	246	210	222	303	289	239	244	289	246	218
Carbonate Alkalinity	3.6	<1	14 J	17	<1	<1	<2	<1	5	<1 UJ	<1	13.8 J	<1 UJ
Chloride	133	101	270	390	78	95	275	237	98	69	206	310	98
Fluoride	0.8	0.7	0.8	0.8	0.8	0.8	0.9	0.8	0.7	0.6	0.8	0.9	<0.7
Nitrate + Nitrite	0.5	0.2	1	2.4	0.3	0.5	1.3	1.9	0.3 J	0.5	0.6	1.6	0.3 J
pH (SU)	8.4	8	8.6	8.5	7.9	8	8.1	8.3	8.4	8.3	8.4	8.6	8.3
Specific Conductivity (umhos/cm)	1094	1000	2000	2550	958	1052	2120	2060	1151	895	1972	2300	1083
Sulfate	244	193	480	515	187	201	497	299	204	191	415	344	217 J
Total Alkalinity													
Total Dissolved Solids	713	657	1265	1679	571	690	1431	1390	755	581	1294	1517	687
Total Suspended Solids	81	228	16	19	134	134	28	31	70	500	37	17	79
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

Table I-4
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Parameter	SEP-11 8/21/2000	SEP-11 11/15/2000	SEP-11 2/28/2001	SEP-11 5/17/2001	SEP-11 7/31/2001	SEP-11 11/16/2001	SEP-11 2/22/2002	SEP-11 5/14/2002	SEP-11 8/22/2002	SEP-11 12/16/2002	SEP-12 2/19/1999	SEP-12 5/13/1999	SEP-12 8/20/1999
Total Metals (mg/L)													
Arsenic	<0.005	0.01	0.005	<0.005	<0.005	0.009	0.01	<0.005	0.007	0.008	0.005	0.005	<0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	8.2	0.7	2.9	2.1	3	0.4	0.6	1.6	3.4	0.2	0.7	1	13
Lead	0.009	<0.003	0.004	<0.003	0.005	<0.003	<0.003	<0.003	0.004	<0.003	<0.003	0.003	0.009
Selenium	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.04	0.04	0.02	<0.02	0.02	<0.02	0.02	<0.02	0.03	<0.02	<0.02	<0.02	0.04
Dissolved Metals (mg/L)													
Arsenic					<0.005	0.02	0.009	<0.005	0.007	0.008	0.005	0.005	<0.005
Cadmium					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	69	104	70	72	60	116	112	64	61	120	113	76	62
Chromium					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper					<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2 J
Lead					<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	17	26	16	17	15	30	29	16	16	31	30	20	13
Potassium	8.2	11	8.2	9.3	8.4	12	11	10	6.5	13	16	7.5	7.2
Selenium					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	89	267	129	134	119	287	374	122	132	306	303	145	97
Zinc					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	250 J	311	235	223	195	276	281	207	226	298	295	239	237
Carbonate Alkalinity	<1 UJ	<1	<1	3.6	<1	8 J	10	<1	<1	<2	<1	1	<1 UJ
Chloride	83	251	130	126	99	238	416	80	105	266	238	97	69
Fluoride	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.8	0.7	0.7
Nitrate + Nitrite	0.6	1.5	0.6 J	0.6	0.2	<1.1	2	0.1	0.4	1.2	1.5	0.2 J	0.5
pH (SU)	8.3	8	8.1	8.4	7.9	8.6	8.5	7.9	8.1	8	8.3	8.4	8.3
Specific Conductivity (umhos/cm)	929	2060	1141	1083	1003	1940	2570	966	1061	2230	2070	1166	902
Sulfate	186	450	230	215	221	409	516	187	208	552	301	220	195
Total Alkalinity													
Total Dissolved Solids	583	1359	739	690	654	1258	1694	591	687	1489	1100	735	597
Total Suspended Solids	401	30	131	107	213	19	24	144	175	14	26	57	476
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Parameter	SEP-12 11/1/1999	SEP-12 2/14/2000	SEP-12 5/10/2000	SEP-12 8/21/2000	SEP-12 11/15/2000	SEP-12 2/28/2001	SEP-12 5/17/2001	SEP-12 8/1/2001	SEP-12 11/16/2001	SEP-12 2/22/2002	SEP-12 5/14/2002	SEP-12 8/22/2002	SEP-12 12/16/2002
Total Metals (mg/L)													
Arsenic	0.02	0.01	0.008	<0.005	0.01	0.007	0.005	0.005	0.007	0.01	<0.005	0.007	0.02
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.5	0.7 J	1.2	10	0.8	2.5	1.9	3.1	0.3	0.6	1.2	3.3	0.3
Lead	0.005	<0.003	0.004	0.01	0.004	0.003	<0.003	0.004	<0.003	<0.003	<0.003	0.003	<0.003
Selenium	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005
Zinc	0.06 J	<0.02	<0.03 UJ	<0.04	0.03	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	0.03	<0.02
Dissolved Metals (mg/L)													
Arsenic								0.005	0.008	0.01	<0.005	0.007	0.02
Cadmium								<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	100	113	76	77	103	67	73	65	108	113	63	61	122
Chromium								<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper								<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron								<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead								<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	30	30	17	19	25	16	18	16	28	28	15	16	32
Potassium	12	13	9.3	9.3	10	8.1	9.8	11	12	11	9	6.5	13
Selenium								<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	254	315	133	95	257	134	136	120	273	400	124	130	345
Zinc								<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	251	283	220	266 J	314	220	215	205	278	298	211	228	307
Carbonate Alkalinity	8.4	12 J	<1 UJ	4.8 J	<1	<1	<1	<1	12 J	<1 UJ	<1	<1	<2
Chloride	259	299	108	85	245	127	111	100	249	390	92	110	306
Fluoride	0.8	0.9	<0.7	0.7	0.8	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.9
Nitrate + Nitrite	<0.8	1.5	0.3 J	0.7	1.6	0.6 J	0.5	0.4 J	0.9	2	0.1	0.4	1.1
pH (SU)	8.5	8.5	8.2	8.4	8.3	8.1	8.3	8.2	8.5	8.3	8	8.2	8
Specific Conductivity (umhos/cm)	2060	2330	1092	930	2060	1180	1090	1027	1900	2600	971	1064	2350
Sulfate	479	598	223 J	190	456	237	208	214	444	521	188	234	598
Total Alkalinity													
Total Dissolved Solids	1316	1525	688	594	1367	744	697	661	1243	1708	605	706	1588
Total Suspended Solids	31	22	64	418	29	95	92	170	15	24	135	161	31
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

Table I-4
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Parameter	SEP-13 2/19/1999	SEP-13 5/13/1999	SEP-13 8/20/1999	SEP-13 11/1/1999	SEP-13 2/14/2000	SEP-13 5/10/2000	SEP-13 8/21/2000	SEP-13 11/15/2000	SEP-13 2/28/2001	SEP-13 5/17/2001	SEP-13 8/1/2001	SEP-13 11/16/2001	SEP-13 2/22/2002
Total Metals (mg/L)													
Arsenic	0.006	0.005	<0.005	0.02	0.01	0.008	<0.005	0.02	0.008	0.005	<0.005	0.007	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.6	1.2	13	0.5	0.5 J	1.2	9.7	1.3	2	1.7	3.1	0.3	0.5
Lead	<0.003	<0.003	0.008	0.006	0.003	<0.003	0.008	0.009	<0.003	<0.003	0.005	<0.003	<0.003
Selenium	<0.005	<0.005	<0.005	0.006	0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.02	<0.02	0.04	0.08 J	<0.02	<0.02 UJ	<0.04	0.04	<0.02	<0.02	0.02	<0.02	<0.02
Dissolved Metals (mg/L)													
Arsenic	0.006	0.005	<0.005								<0.005	0.009	0.01
Cadmium	<0.005	<0.005	<0.005								<0.005	<0.005	<0.005
Calcium	117	75	58	99	117	78	78	106	62	70	64	110	113
Chromium	<0.01	<0.01	<0.01								<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03								<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1								<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003								<0.003	<0.003	<0.003
Magnesium	32	19	12	30	31	18	18	27	15	17	16	28	30
Potassium	16	7.8	7.1	12	14	9.4	9.3	10	7.4	9.1	11	11	11
Selenium	<0.005	<0.005	<0.005								<0.005	<0.005	<0.005
Sodium	300	140	99	263	316	142	94	270	129	135	120	273	398
Zinc	<0.02	<0.02	<0.02								<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	304	249	220	238	277	220	255 J	317	207	211	217	268	262
Carbonate Alkalinity	<1	7	<1 UJ	10.8	9.6 J	4.8 J	<1 UJ	<1	<1	2.4	<1	19 J	12
Chloride	238	99	67	240	291	103	81	259	140	131	97	212	420
Fluoride	0.8	0.6	0.7	0.8	0.9	<0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.8
Nitrate + Nitrite	1.4	<0.1 UJ	0.5	<0.7	1.5	0.2 J	0.7	1.6	0.5 J	0.6	0.4 J	<1.1	2.4
pH (SU)	8.3	8.6	8.3	8.5	8.5	8.5	8.3	8.3	8	8.4	8.3	8.6	8.6
Specific Conductivity (umhos/cm)	2090	1182	889	2070	2330	1100	931	2100	1201	1099	1030	1903	2590
Sulfate	309	217	182	444	575	211 J	172	454	256	244	220	444	514
Total Alkalinity													
Total Dissolved Solids	1169	735	614	1299	1554	684	602	1420	753	704	687	1244	1694
Total Suspended Solids	24	55	455	33	17	62	427	52	90	66	180	13	19
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Parameter	SEP-13 5/14/2002	SEP-13 8/22/2002	SEP-13 12/16/2002	SEP-14 8/11/1999	SEP-14 8/21/2000	SEP-14 11/14/2000	SEP-14 6/27/2001	SEP-2 2/19/1999	SEP-2 5/13/1999	SEP-2 8/20/1999	SEP-2 11/1/1999	SEP-2 2/14/2000	SEP-2 5/10/2000
Total Metals (mg/L)													
Arsenic	<0.005	0.007	0.02	0.05	0.06	0.04	0.09	0.005	<0.005	<0.005	0.02	0.01	0.007
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	0.3	0.3	0.4	1.2	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.4	3.2	0.4	3.6 J	2.3	2.8	9.1	0.8	1.4	13	0.7	0.5 J	1.2
Lead	<0.003	0.004	<0.003	0.1	0.07	0.09	0.4	0.003	<0.003	0.009	0.01	<0.003	0.007
Selenium	<0.005	0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	0.005	<0.005
Zinc	<0.02	0.02	<0.02	0.2	0.1	0.2	1.3	<0.02	<0.02	0.03	0.06 J	<0.02	<0.03 UJ
Dissolved Metals (mg/L)													
Arsenic	<0.005	0.008	0.02	0.05				0.005	0.005	<0.005			
Cadmium	<0.005	<0.005	<0.005	<0.005				<0.005	<0.005	<0.005			
Calcium	63	60	126	15	12	15	23	115	77	58	103	119	77
Chromium	<0.01	<0.01	0.03	<0.01				<0.01	<0.01	<0.01			
Copper	<0.03	<0.03	<0.03	0.07				<0.03	<0.03	<0.03			
Iron	<0.1	<0.1	<0.1	0.1				<0.1	<0.1	<0.1			
Lead	<0.003	<0.003	<0.003	0.01				<0.003	<0.003	<0.003			
Magnesium	16	16	32	2.7	3	2.9	4.5	33	19	12	30	31	17
Potassium	8.3	6.3	15	<5	2.6	2.5	7.7	18	7.7	7	13	13	9.5
Selenium	<0.005	<0.005	<0.005	<0.005				<0.005	<0.005	<0.005			
Sodium	120	128	340	12	16	8.9	26	299	140	97	261	315	131
Zinc	<0.02	<0.02	<0.02	<0.03				0.03	<0.02	<0.02			
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	207	220	298	51	54	59	51	295	227	234	249	275	220
Carbonate Alkalinity	<1	<1	<2	<1	<1	<1	<1	<1	5	<1 UJ	8.4	12 J	<1 UJ
Chloride	79	98	272	1.1	6	3.7	9.2	237	95	77	244	297	103
Fluoride	0.8	0.8	0.9	0.3	0.2	0.2	0.4	0.8	0.7	0.6	0.8	0.9	<0.7
Nitrate + Nitrite	0.1	0.5	1.2	0.09	0.4	0.6	1.1	1.5	0.2 J	0.5	<0.8	1.3	0.3 J
pH (SU)	7.9	8.1	7.8	7.8	7.7	7.6	6.8	8.3	8.4	8.3	8.5	8.5	8.3
Specific Conductivity (umhos/cm)	976	1069	2400	160	183	152	306	2080	1179	887	2110	2330	1086
Sulfate	188	217	541	20	33	20	75	294	226	185	516	593	211 J
Total Alkalinity							42						
Total Dissolved Solids	598	692	1608	103	136	116	262	1252	746	556	1345	1551	694
Total Suspended Solids	120	139	29	53	49	51	71	31	63	339	36	24	74
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

Table I-4
Surface Water Sampling Results (ASARCO): February 1999 to December 2002

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Parameter	SEP-2 8/21/2000	SEP-2 11/15/2000	SEP-2 2/28/2001	SEP-2 5/17/2001	SEP-2 7/31/2001	SEP-2 11/16/2001	SEP-2 2/22/2002	SEP-2 5/14/2002	SEP-2 8/22/2002	SEP-2 12/16/2002	SEP-3 5/12/1999	SEP-3 8/6/1999	SEP-3 8/20/1999
Total Metals (mg/L)													
Arsenic	0.005	0.01	0.007	0.005	0.005	0.009	0.01	<0.005	0.007	0.02	0.005		<0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03
Iron	9	1.4	2.8	2.1	3.9	0.5	0.5	1.5	3.4	0.3	1.6		14
Lead	0.02	0.004	0.003	<0.003	0.009	0.006	0.003	<0.003	0.004	<0.003	<0.003		0.008
Selenium	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005		<0.005
Zinc	<0.05	0.04	0.02	0.03	0.02 J	<0.02	0.02	<0.02	0.02	<0.02	<0.02		0.03
Dissolved Metals (mg/L)													
Arsenic					0.005	0.01	0.01	<0.005	0.007	0.02	0.005		<0.005
Cadmium					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005
Calcium	75	107	72	71	57	111	115	63	60	124	73		60
Chromium					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01
Copper					<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03
Iron					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1
Lead					<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003
Magnesium	19	26	17	17	15	28	29	15	16	33	18		12
Potassium	8.4	11	8.5	9.9	7.9	12	11	9.9	6.5	15	7.5		7.1
Selenium					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005
Sodium	91	261	142	135	119	269	410	123	129	337	140		104
Zinc					<0.02 UJ	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		<0.02
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	272 J	342	232	207	270	268	264	209	223	300	224 J		251
Carbonate Alkalinity	<1 UJ	<1	<1	<1	<1	12 J	19	<1	<1	<2	5 J		<1 UJ
Chloride	87	210	136	130	92	233	401	90	92	328	98		76
Fluoride	0.7	0.8	0.7	0.7	0.7	0.7	0.9	0.8	0.8	0.9	0.7		0.6
Nitrate + Nitrite	0.7	1.3	0.6 J	0.5	0.2	1.2	2.2	0.07	0.5	1.1	<0.4 UJ		0.6
pH (SU)	8.3	7.9	8	8.3	8.1	8.5	8.6	8	7.9	7.9	9.4		8.3
Specific Conductivity (umhos/cm)	931	2070	1179	1090	988	1908	2600	966	1064	2340	1168 J		915
Sulfate	184	443	244	239	191	441	533	174	201	487	232		197
Total Alkalinity													
Total Dissolved Solids	609	1363	739	697	624	1250	1722	605	696	1591	746		582
Total Suspended Solids	426	50	116	116	254	25	21	155	152	18	83		522
Volatile Organic Compounds (mg/L)													
Benzene											<0.001 UJ	<0.001	
Ethylbenzene											<0.001 UJ	<0.001	
Toluene											<0.001 UJ	<0.001	
Total Xylenes											<0.001 UJ	<0.001	
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons											**<5**	**<5**	

Table I-4
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Parameter	SEP-3 11/1/1999	SEP-3 1/31/2000	SEP-3 5/9/2000	SEP-3 8/14/2000	SEP-3 11/10/2000	SEP-3 2/23/2001	SEP-3 5/16/2001	SEP-3 8/1/2001	SEP-3 11/16/2001	SEP-3 2/22/2002	SEP-3 5/13/2002	SEP-3 8/21/2002	SEP-3 11/13/2002
Total Metals (mg/L)													
Arsenic	0.006	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	0.005	0.005	0.01	<0.005	0.007	0.006
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.3 J	1.2	1.9	6	8.4	1.8	2.4 J	2.8	0.4	0.4	1.6	3.4	0.3
Lead	0.005	<0.003	0.003	0.005	0.005	<0.003	<0.003	0.004	<0.003	<0.003	<0.003	0.006	<0.003
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005
Zinc	0.07 J	<0.02	<0.03 UJ	0.02	0.03	<0.03	0.02	0.02	<0.02	0.02	<0.02	0.03	<0.02
Dissolved Metals (mg/L)													
Arsenic								0.005	0.007	0.01	<0.005	0.006	<0.005
Cadmium								<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	104	91	85	71	113	73	67	63	108	105	62	60	113
Chromium								<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper								<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron								<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lead								<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	25	21	18	16	29	16	16	16	26	26	16	16	27
Potassium	11	8.6	9.5	9.3	11	8.6	9.7	10	11	12	8.2	6.2	9.2
Selenium								<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	223	193	168	103	225	158	124	124	273	362	119	131	251
Zinc								<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	271	240	226	221	342	224	211	220	271	268	215	226	296
Carbonate Alkalinity	<1	<1	<1	11	<1	7 J	<1	<1	17 J	12	<1	<1	<1
Chloride	188	160	115	76	222 J	168	106	106	281	390	99	103	260
Fluoride	0.7	0.7	<0.7	0.7 J	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Nitrate + Nitrite	<1.3	<1.3	0.7	0.6 J	2.2	1.2	0.5	0.6 J	2.4	3	<0.1 UJ	0.5 J	2.2
pH (SU)	8.4	8.3	8.3	8.6	8.2	8.5	8.3	8.2	8.6	8.6	7.8	7.7	7.9
Specific Conductivity (umhos/cm)	1826	1400	1123	987	1784	1339	1001	1046	1935	2360	1004	1066	1958
Sulfate	417	235	225	208	335	245	226	194	421	529	197	203	457
Total Alkalinity													
Total Dissolved Solids	1186	853	722	634	1208	830	638	673	1261	1523	603	675	1270
Total Suspended Solids	33	64 J	103	280	294	98	228	194	23	17	175	175	17
Volatile Organic Compounds (mg/L)													
Benzene	<0.001												
Ethylbenzene	<0.001												
Toluene	<0.001												
Total Xylenes	<0.001												
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons	**<5**												

Table I-4
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Parameter	SEP-4 2/19/1999	SEP-4 5/13/1999	SEP-4 8/20/1999	SEP-4 11/1/1999	SEP-4 2/14/2000	SEP-4 5/10/2000	SEP-4 8/21/2000	SEP-4 11/15/2000	SEP-4 2/28/2001	SEP-4 5/17/2001	SEP-4 7/31/2001	SEP-4 11/16/2001	SEP-4 2/22/2002
Total Metals (mg/L)													
Arsenic	0.005	0.006	<0.005	0.02	0.02	0.008	<0.005	0.02	0.008	0.005	0.006	0.008	0.01
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.6	1.3	13	0.5 J	0.3 J	1.1	12	1.5	2.2	1.8	2.1	0.2	0.5
Lead	<0.003	0.003	0.009	0.007	<0.003	<0.003	0.009	0.008	<0.003	<0.003	0.005	0.003	0.003
Selenium	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.02	<0.02	0.03	0.06 J	<0.02	<0.02	<0.05	0.05	<0.02	<0.02	<0.02 UJ	<0.02	0.02
Dissolved Metals (mg/L)													
Arsenic	0.006	0.005	<0.005								0.005	0.009	0.01
Cadmium	<0.005	<0.005	<0.005								<0.005	<0.005	<0.005
Calcium	116	76	59	96	112	78	85	113	63	71	61	112	112
Chromium	<0.01	<0.01	<0.01								<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03								<0.03	<0.03	<0.03
Iron	<0.1	<0.1	<0.1								<0.1	<0.1	<0.1
Lead	<0.003	<0.003	<0.003								<0.003	<0.003	<0.003
Magnesium	31	20	12	29	32	18	21	28	16	17	16	28	30
Potassium	16	7.1	7.1	12	13	9.7	11	11	7.3	9.9	7.5	11	11
Selenium	<0.005	<0.005	<0.005								<0.005	<0.005	<0.005
Sodium	310	140	98	263	334	146	101	287	132	136	128	270	391
Zinc	<0.02	<0.02	0.03								<0.02 UJ	<0.02	<0.02
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	306	229	218	246	270	227	271 J	320	220	220	220	254	285
Carbonate Alkalinity	<1	7	16 J	<1	7.2 J	<1 UJ	<1 UJ	<1	<1	<1	<1	19 J	7 J
Chloride	247	97	74	217	315	113	83	247	141	116	110	248	385
Fluoride	0.8	0.7	0.7	0.8	0.9	<0.7	0.6	0.8	0.8	0.8	0.7	0.8	0.8
Nitrate + Nitrite	1.5	<0.1 UJ	0.5	<0.8	1.7	0.2 J	0.6	1.3	0.7 J	0.5	0.2	1.2	2.6
pH (SU)	8.3	8.5	8.6	8.4	8.4	8.3	8.3	8.2	7.9	8.3	8.1	8.7	8.4
Specific Conductivity (umhos/cm)	2100	1194	898	2120	2440	1122	938	2160	1226	1106	1047	1912	2580
Sulfate	288	239	188	450	501	223 J	181	492	243	245	217	414	521
Total Alkalinity													
Total Dissolved Solids	1116	776	588	2069	1574	519	617	1448	777	705	652	1246	1700
Total Suspended Solids	24	55	475	33	61	58	437	55	95	80	176	16	22
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

Table I-4
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Parameter	SEP-4 5/14/2002	SEP-4 8/22/2002	SEP-4 12/16/2002	SEP-6 5/12/1999	SEP-6 8/6/1999	SEP-6 8/20/1999	SEP-6 11/1/1999	SEP-6 1/31/2000	SEP-6 5/9/2000	SEP-6 8/14/2000	SEP-6 11/10/2000	SEP-6 2/23/2001	SEP-6 5/16/2001
Total Metals (mg/L)													
Arsenic	<0.005	0.009	0.02			<0.005	0.006	<0.005	0.007	<0.005	<0.005	<0.005	<0.005
Cadmium	<0.005	<0.005	<0.005			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01			0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03			<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	1.7	3.2	0.7			15	0.2 J	1.2	2	5.8	7	1.7	2.7 J
Lead	<0.003	0.004	<0.003			0.009	0.005	0.005	0.004	0.006	0.005	<0.003	<0.003
Selenium	<0.005	0.006	<0.005			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.02	0.03	<0.02			0.04	0.06 J	<0.02	<0.03 UJ	0.03	0.03	<0.04	<0.02
Dissolved Metals (mg/L)													
Arsenic	0.005	0.007	0.02			<0.005							
Cadmium	<0.005	<0.005	<0.005			<0.005							
Calcium	62	60	125			59	107	88	80	65	106	72	71
Chromium	<0.01	<0.01	<0.01			<0.01							
Copper	<0.03	<0.03	<0.03			<0.03							
Iron	<0.1	<0.1	<0.1			0.5 J							
Lead	<0.003	<0.003	<0.003			<0.003							
Magnesium	16	16	35			12	27	21	18	15	27	16	17
Potassium	9	6.7	16			7.2	11	8.4	9.8	8.2	10	8.4	9.9
Selenium	<0.005	<0.005	<0.005			<0.005							
Sodium	128	134	376			102	235	193	146	93	221	155	125
Zinc	<0.02	<0.02	<0.02			<0.02							
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	210	232	303			250	271	228	226	223	334	234	207
Carbonate Alkalinity	<1	<1	<2			<1 UJ	<1	<1	<1	11	<1	4.8 J	<1
Chloride	80	103	355			73	215	192	98	73	204 J	158	108
Fluoride	0.8	0.8	0.9			0.7	0.7	0.7	<0.7	0.7 J	0.7	0.7	0.7
Nitrate + Nitrite	0.1	0.5	1.1			0.6	<1.3	<1.4	0.6	0.6 J	2.2	1.2	0.6
pH (SU)	8	8	7.8			8.2	8.4	8.2	8.3	8.6	8.2	8.4	8.2
Specific Conductivity (umhos/cm)	984	1080	2500			915	1830	1412	1122	987	1880	1338	1000
Sulfate	190	211	541			191	416	242	210	188	360	236	218
Total Alkalinity													
Total Dissolved Solids	607	691	1684			566	833	861	703	630	1275	824	638
Total Suspended Solids	138	144	57			521	33	62 J	108	274	296	93	191
Volatile Organic Compounds (mg/L)													
Benzene				<0.001	<0.001		<0.001						
Ethylbenzene				<0.001	<0.001		<0.001						
Toluene				<0.001	<0.001		<0.001						
Total Xylenes				<0.001	<0.001		<0.001						
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons				**<5**	**<5**		**<5**						

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Parameter	SEP-6 8/1/2001	SEP-6 11/16/2001	SEP-6 2/22/2002	SEP-6 5/13/2002	SEP-6 8/21/2002	SEP-6 11/13/2002	SEP-7 2/19/1999	SEP-7 5/12/1999	SEP-7 8/6/1999	SEP-7 8/20/1999	SEP-7 11/1/1999	SEP-7 1/31/2000	SEP-7 5/9/2000
Total Metals (mg/L)													
Arsenic	0.005	0.005	0.01	<0.005	0.005	0.005	0.01	0.007		<0.005	0.007	<0.005	0.007
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	<0.03	<0.03	<0.03
Iron	3.2	0.5	0.4	1.7	3.1	0.4	0.7	1.6		14	0.2	1.1	1.7
Lead	0.004	<0.003	<0.003	<0.003	0.003	<0.003	0.01	0.003		0.008	0.005	<0.003	0.007
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Zinc	0.02	<0.02	0.04	<0.02	0.02	<0.02	0.02	<0.02		0.04	0.07 J	<0.02	<0.03 UJ
Dissolved Metals (mg/L)													
Arsenic	0.005	0.007	0.01	<0.005	0.006	0.005	0.008	0.005		<0.005			
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005			
Calcium	64	110	102	63	60	113	109	73		59	99	85	85
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03			
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1			
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003			
Magnesium	16	26	27	16	16	27	26	18		12	25	19	18
Potassium	9.5	11	11	9.2	6.4	9.2	13	7.6		6.9	11	7.3	10
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005			
Sodium	124	275	353	130	132	257	315	140		102	215	191	171
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02		<0.02			
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	214	262	222	212	226	305	275	190 J		242	276	244	224
Carbonate Alkalinity	<1	17 J	24	<1	<1	<1	<1	5 J		<1 UJ	<1	<1	<1
Chloride	105	290	388	97	92	255	248	92		76	220	167	102
Fluoride	0.7	0.7	0.8	0.8	0.7	0.8	0.8	0.7		0.6	0.7	0.7	<0.7
Nitrate + Nitrite	0.6 J	2.3	3.8	0.3 J	0.6 J	2.1	2.6	<0.1 UJ		0.6	<1.3	<1.1	0.5
pH (SU)	8.2	8.6	8.7	7.9	8	8.1	8.3	8		8.3	8.3	8.3	8.3
Specific Conductivity (umhos/cm)	1045	1933	2370	1005	1063	1960	2100	1172 J		918	1803	1402	1120
Sulfate	212	438	504	205	202	460	313	216		196	423	232	227
Total Alkalinity													
Total Dissolved Solids	663	1266	1558	604	679	1289	1363	746		572	1135	841	723
Total Suspended Solids	182	23	20	200	182	17	28	76		522	29	67 J	107
Volatile Organic Compounds (mg/L)													
Benzene							<0.001	<0.001	<0.001		0.06		
Ethylbenzene							<0.001	<0.001	<0.001		0.02		
Toluene							<0.001	<0.001	<0.001		<0.001		
Total Xylenes							<0.001	<0.001	<0.001		0.005		
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons							**<5 UJ**	**<5**	**<5**		**<5**		

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Parameter	SEP-7 8/14/2000	SEP-7 2/23/2001	SEP-7 5/16/2001	SEP-7 7/31/2001	SEP-7 11/16/2001	SEP-7 2/22/2002	SEP-7 5/13/2002	SEP-7 8/21/2002	SEP-7 11/13/2002	SEP-9 2/19/1999	SEP-9 5/12/1999	SEP-9 8/20/1999	SEP-9 11/1/1999
Total Metals (mg/L)													
Arsenic	<0.005	<0.005	<0.005	<0.005	0.005	0.01	<0.005	0.006	<0.005	0.008	<0.005	0.006	0.006
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	5.9	1.9	2.2 J	2.8	0.6	0.3	1.8	3.2	0.3	0.3	1.6	8.1	0.2
Lead	0.006	<0.004	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.004	0.007	0.006
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.03	<0.04	<0.02	<0.02 UJ	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	0.04	<0.02 UJ
Dissolved Metals (mg/L)													
Arsenic				<0.005	0.006	0.009	<0.005	0.005	<0.005	0.009	0.005	<0.005	
Cadmium				<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Calcium	67	74	69	61	110	103	61	61	113	86	74	63	96
Chromium				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Copper				<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Iron				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead				<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
Magnesium	16	17	16	16	27	27	15	16	27	20	19	13	24
Potassium	9.1	8.5	10	7.7	11	11	7.9	6.4	9.4	14	6.6	8.5	10
Selenium				<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Sodium	103	161	126	128	287	347	118	133	252	323	140	176	204
Zinc				<0.02 UJ	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	
Water Quality Parameters (mg/L)													
Bicarbonate Alkalinity	222	237	210	207	256	246	212	207	307	226	227 J	216	282
Carbonate Alkalinity	11	4.8 J	<1	<1	17 J	12	<1	<1	<1	<1	5 J	<1 UJ	<1
Chloride	80	163	117	103	263	323	95	95	270	261	97	150	211
Fluoride	0.7 J	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7
Nitrate + Nitrite	0.7 J	1.2	0.6	0.2	2.4	3.4	<0.2 UJ	0.4 J	1.9	5	<0.1 UJ	3.5	<1.4
pH (SU)	8.6	8.4	8.2	8.2	8.6	8.6	7.8	7.7	8	8.1	8.4	8.3	8.3
Specific Conductivity (umhos/cm)	984	1338	996	1045	1930	2360	1000	1063	1960	2050	1156 J	1303	1804
Sulfate	213	225	231	199	434	506	202	226	426	331	221	268	381
Total Alkalinity													
Total Dissolved Solids	611	835	629	660	1272	1522	627	691	1249	1342	639	836	1145
Total Suspended Solids	278	88	214	166	23	15	161	168	17	14	70	485	24
Volatile Organic Compounds (mg/L)													
Benzene													
Ethylbenzene													
Toluene													
Total Xylenes													
Petroleum Hydrocarbons (mg/L)													
Total Petroleum Hydrocarbons													

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Parameter	SEP-9 2/14/2000	SEP-9 5/10/2000	SEP-9 8/21/2000	SEP-9 11/15/2000	SEP-9 2/28/2001	SEP-9 5/17/2001	SEP-9 7/31/2001	SEP-9 11/16/2001	SEP-9 2/22/2002	SEP-9 5/14/2002	SEP-9 8/22/2002	SEP-9 12/16/2002
Total Metals (mg/L)												
Arsenic	0.008	0.01	0.007	0.01	0.006	0.007	0.005	0.006	0.01	0.006	0.008	0.005
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron	0.7 J	0.9	4.6	0.5	3	1.4	<0.1	0.5	0.3	1.2	2.6	0.2
Lead	<0.003	0.03	0.007	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003	<0.003
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005
Zinc	0.02	<0.04 UJ	<0.05	0.05	0.03	0.03	<0.02 UJ	<0.02	<0.02	0.02	0.03	<0.02
Dissolved Metals (mg/L)												
Arsenic							0.006	0.008	0.009	0.006	0.008	0.005
Cadmium							<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	100	74	67	87	72	71	69	103	97	71	61	106
Chromium							<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Copper							<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Iron							1.3	<0.1	<0.1	<0.1	<0.1	<0.1
Lead							0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	23	16	15	19	16	17	17	24	24	18	15	24
Potassium	12	10	8.1	9.8	9.4	12	8.6	12	11	12	7.1	14
Selenium							<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	285	224	155	268	195	203	145	323	343	225	170	291
Zinc							<0.02 UJ	<0.02	<0.02	<0.02	<0.02	<0.02
Water Quality Parameters (mg/L)												
Bicarbonate Alkalinity	246	220	227 J	259	207	217	215	240	234	215	220	289
Carbonate Alkalinity	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	10 J	4.8 J	<1	<1	<2
Chloride	185	190	145	245	173	206	110	357	372	169	141	305
Fluoride	0.8	<0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8
Nitrate + Nitrite	2.7	3.5 J	3.8	3.4	3.4	3.2	0.9	4.9	4.4	1.5	2.1	2.8
pH (SU)	8.3	8	8.2	7.9	7.9	8.1	8.2	8.5	8.4	7.9	8	8
Specific Conductivity (umhos/cm)	2120	1446	1264	1960	1375	1400	1143	2100	2360	1460	1315	2030
Sulfate	341	237 J	236	348	276	290	245	461	505	271	225	387
Total Alkalinity												
Total Dissolved Solids	1341	918	803	1275	882	901	750	1374	1525	898	833	1347
Total Suspended Solids	36	58	248	29	152	78	158	21	13	114	109	17
Volatile Organic Compounds (mg/L)												
Benzene												
Ethylbenzene												
Toluene												
Total Xylenes												
Petroleum Hydrocarbons (mg/L)												
Total Petroleum Hydrocarbons												

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Parameter	SEP-1 3/6/2003	SEP-1 4/28/2003	SEP-1 8/5/2003	SEP-1 3/1/2004	SEP-1 8/25/2004	SEP-10 3/6/2003	SEP-10 5/6/2003	SEP-10 8/5/2003	SEP-10 3/1/2004	SEP-10 8/26/2004
Total Metals (mg/L)										
Arsenic	0.009	0.009	0.006	0.013	0.0058	0.01	0.02	0.005	0.017	0.014
Cadmium	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.025	<0.01	<0.01	<0.03	<0.03	<0.025	<0.01	<0.01
Iron	0.3	0.5	0.15	0.14	<0.1	0.7	0.4	<0.1	0.11	<0.1
Lead	<0.003	<0.003	<0.003	<0.001	<0.001	<0.003	<0.003	<0.003	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.05	0.03	<0.02	0.034	<0.02	0.05	<0.02	<0.02	0.033	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	7.9	8.5	8.2	8	8.6	7.9	8.5	8.2	8.4	8.5
Specific Conductivity (umhos/cm)	2480	2650	987	2900	1100	2560	3310	984	2900	1100
Total Dissolved Solids	**1537**	**1724**	**609**	**1800**	**460**	**1587**	**2086**	**601**	**1800**	**680**

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Parameter	SEP-11 3/6/2003	SEP-11 5/6/2003	SEP-11 8/5/2003	SEP-11 3/1/2004	SEP-11 8/26/2004	SEP-12 3/6/2003	SEP-12 5/6/2003	SEP-12 8/5/2003	SEP-12 3/1/2004	SEP-12 8/26/2004
Total Metals (mg/L)										
Arsenic	0.01	0.02	0.005	0.016	0.01	0.02	0.02	0.005	0.02	0.012
Cadmium	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.025	<0.01	<0.01	<0.03	<0.03	<0.025	<0.01	<0.01
Iron	0.5	0.2	<0.1	<0.1	<0.1	0.4	0.2	0.018	0.18	0.15
Lead	<0.003	<0.003	<0.003	<0.001	<0.001	<0.003	<0.003	<0.003	0.002	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.05	<0.02	<0.02	0.045	<0.02	0.05	<0.02	<0.02	0.02	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	7.9	8.1	8.4	8.6	8.4	7.8	8.3	8.3	8.4	8.5
Specific Conductivity (umhos/cm)	2650	3760	984	3000	1300	2710	3350	985	3600	1400
Total Dissolved Solids	**1662**	**2462**	**620**	**1900**	**780**	**1647**	**2165**	**609**	**2300**	**800**

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Parameter	SEP-13 3/6/2003	SEP-13 5/6/2003	SEP-13 8/5/2003	SEP-13 3/1/2004	SEP-13 8/26/2004	SEP-2 3/6/2003	SEP-2 5/6/2003	SEP-2 8/5/2003	SEP-2 3/1/2004	SEP-2 8/26/2004
Total Metals (mg/L)										
Arsenic	0.02	0.02	0.005	0.021	0.013	0.02	0.02	0.022	0.02	0.012
Cadmium	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.025	<0.01	<0.01	<0.03	<0.03	<0.025	0.024	<0.01
Iron	0.5	0.2	<0.1	0.13	<0.1	0.4	0.3	<0.1	0.2	<0.1
Lead	<0.003	<0.003	<0.003	0.0018	<0.001	<0.003	<0.003	<0.003	0.0075	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.012	<0.005	<0.005
Zinc	0.05	<0.02	<0.02	0.025	<0.02	0.05	<0.02	<0.02	0.068	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	7.8	8	8.3	8.6	8.2	7.8	8.5	8.3	8.5	8.5
Specific Conductivity (umhos/cm)	2730	3380	988	3500	2000	2700	3340	1110	3500	1300
Total Dissolved Solids	**1679**	**2220**	**597**	**2200**	**1100**	**1696**	**2142**	**697**	**2200**	**780**

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Parameter	SEP-3 3/6/2003	SEP-3 4/28/2003	SEP-3 8/5/2003	SEP-3 3/1/2004	SEP-3 8/25/2004	SEP-4 3/6/2003	SEP-4 5/6/2003	SEP-4 8/5/2003	SEP-4 3/1/2004	SEP-4 8/26/2004
Total Metals (mg/L)										
Arsenic	0.01	0.01	0.005	0.035	0.0054	0.02	0.03	0.005	0.022	0.013
Cadmium	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.025	<0.01	<0.01	<0.03	<0.03	<0.025	<0.01	<0.01
Iron	0.2	0.5	<0.1	0.16	<0.1	0.5	0.1	0.19	<0.1	<0.1
Lead	<0.003	<0.003	<0.003	0.0012	<0.001	<0.003	0.003	<0.003	0.0012	<0.001
Selenium	<0.005	<0.005	<0.005	0.0075	<0.005	<0.005	0.006	<0.005	<0.005	<0.005
Zinc	0.05	0.02	<0.02	0.028	<0.02	0.04	<0.02	<0.02	0.021	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8	8.5	8.3	8.1	8.6	7.7	8.4	8.2	8.6	8.5
Specific Conductivity (umhos/cm)	2430	2590	1019	3700	1100	2740	3350	997	3300	1400
Total Dissolved Solids	**1529**	**1655**	**627**	**2400**	**380**	**1663**	**2174**	**604**	**2100**	**850**

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Parameter	SEP-6 3/6/2003	SEP-6 4/28/2003	SEP-6 8/5/2003	SEP-6 3/1/2004	SEP-6 8/25/2004	SEP-7 3/6/2003	SEP-7 4/28/2003	SEP-7 8/5/2003	SEP-7 3/1/2004	SEP-7 8/25/2004
Total Metals (mg/L)										
Arsenic	0.01	0.01	0.005	0.025	0.0056	0.01	0.01	0.005	0.016	0.0055
Cadmium	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.025	<0.01	<0.01	<0.03	<0.03	<0.025	<0.01	<0.01
Iron	0.2	0.5	<0.1	<0.1	<0.1	0.3	0.6	0.7	0.16	<0.1
Lead	<0.003	0.005	<0.003	<0.001	<0.001	<0.003	<0.003	<0.003	0.0013	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.04	0.02	<0.02	0.082	<0.02	0.05	<0.02	<0.02	0.035	<0.02
Water Quality Parameters (mg/L)										
pH (SU)	8.1	8.3	8.3	8.2	8.6	8	8.4	8.3	8.1	8.6
Specific Conductivity (umhos/cm)	2450	2630	1019	3400	1200	2440	2590	1019	3100	1200
Total Dissolved Solids	**1502**	**1702**	**624**	**2100**	**150**	**1512**	**1671**	**646**	**2000**	**570**

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Parameter	SEP-9 3/6/2003	SEP-9 5/6/2003	SEP-9 8/5/2003	SEP-9 3/1/2004	SEP-9 8/26/2004
Total Metals (mg/L)					
Arsenic	0.009	0.01	0.007	0.014	0.0064
Cadmium	<0.005	<0.005	<0.005	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.03	<0.03	<0.025	0.013	<0.01
Iron	0.4	0.2	<0.1	0.1	0.1
Lead	<0.003	<0.003	<0.003	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.09	0.03	0.022	0.042	0.026
Water Quality Parameters (mg/L)					
pH (SU)	7.9	8.4	8.2	8.2	8.3
Specific Conductivity (umhos/cm)	2320	2440	1180	2500	1300
Total Dissolved Solids	**1436**	**1535**	**736**	**1500**	**800**

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 2/8/2005	SEP-1 9/1/2005	SEP-1 2/14/2006	SEP-1 8/15/2006	SEP-1 1/10/2007	SEP-1 8/14/2007	SEP-10 2/14/2005	SEP-10 9/1/2005	SEP-10 2/15/2006	SEP-10 1/11/2007
Total Metals (mg/L)										
Aluminum					0.288					0.877
Antimony					<0.0116					<0.0116
Arsenic	0.012	<0.005	0.007	<0.01	0.047 J	<0.0043	0.048	0.006	0.109	0.083
Barium					0.089					0.086
Beryllium					0.009					<0.000178
Cadmium	<0.001 UJ	<0.001	<0.001	<0.001	0.002	<0.0014	<0.001	<0.001	<0.001	0.003
Calcium					126					194
Chromium	<0.01	<0.01	<0.01	<0.01	<0.00357	<0.0009	<0.01	<0.01	<0.01	<0.00357
Cobalt					<0.00293					<0.00293
Copper	<0.01	<0.01	<0.01	0.016	0.006	0.011	<0.01	<0.01	<0.01	<0.00127
Iron	<0.1	0.11	<0.03	3.87	0.394	5.09	<0.1	0.14	<0.03	1.19
Lead	<0.001 UJ	<0.01	<0.003	<0.005	<0.0031	<0.0074	<0.001	<0.01	<0.003	<0.0031
Magnesium					33.7					101
Manganese					0.317					0.659
Nickel					0.006					0.004 J
Phosphorus					0.546					0.166
Potassium					14.6					20.4
Selenium	<0.005 UJ	<0.005	<0.005	<0.01	<0.005 UJ	<0.0131	0.0079	<0.005	0.02	<0.005
Silver					<0.000274					<0.000274
Sodium					468					1440
Thallium					<0.0112					<0.0112
Vanadium					<0.005					<0.005
Zinc	0.051	<0.01	0.02	0.031	0.014	0.056 J	0.024	<0.01	0.02	<0.000666
Dissolved Metals (mg/L)										
Aluminum					<0.00984					<0.00984
Antimony					<0.00326					<0.0116
Arsenic					<0.0036					0.047
Barium					0.074					0.086
Beryllium					0.009					<0.000178
Cadmium					0.002					<0.000577
Calcium					119					175
Chromium					<0.00357					<0.00357
Cobalt					<0.00293					<0.00293

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-1 2/8/2005	SEP-1 9/1/2005	SEP-1 2/14/2006	SEP-1 8/15/2006	SEP-1 1/10/2007	SEP-1 8/14/2007	SEP-10 2/14/2005	SEP-10 9/1/2005	SEP-10 2/15/2006	SEP-10 1/11/2007
Copper					0.004 J					<0.0014
Iron					0.017					0.005 J
Lead					<0.00398					<0.00398
Magnesium					30.1					89.4
Manganese					0.204					0.727
Nickel					0.006					0.004 J
Phosphorus					0.462					<0.0123
Potassium					13.8					20.9
Selenium					<0.00556					<0.00556
Silver					<0.000199					<0.000199
Sodium					454					1250
Thallium					<0.0277					<0.0189
Vanadium					<0.005					<0.005
Zinc					0.014					<0.003
Water Quality Parameters (mg/L)										
Bromide					<0.214					2.39
Phosphate					<0.128					<0.128
Bicarbonate Alkalinity					260					320
Carbonate Alkalinity					<1					<1
Chloride					378					994
Hydroxide Alkalinity					<1					<1
Nitrate					2.08					<0.053
pH (SU)	8.5	8.4	8.6	8.55	8.37	8.37	9.1	8.4	8.6	7.89
Specific Conductivity (umhos/cm)	2800	649	2430	798	2980	841	3200	673	3750	6110
Sulfate					627					1770
Total Alkalinity					260					320
Total Dissolved Solids	1700	462	1750	619	1630	588	2000	462	2720	3860
Total Organic Carbon					**3.83**					**4.55**

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-10 8/14/2007	SEP-10+S50 1/11/2007	SEP-11 2/14/2005	SEP-11 9/1/2005	SEP-11 2/15/2006	SEP-11 1/11/2007	SEP-11 8/14/2007	SEP-12 2/14/2005	SEP-12 9/1/2005	SEP-12 2/15/2006
Total Metals (mg/L)										
Aluminum						4.07				
Antimony						<0.0116				
Arsenic	<0.0043	<0.00489	0.046	0.018	0.067	<0.00489	<0.0043	0.057	0.006	0.123
Barium						0.121				
Beryllium						<0.000178				
Cadmium	<0.0014	<0.000268	<0.001	<0.001	<0.001	0.002	<0.0014	<0.001	<0.001	<0.001
Calcium						166				
Chromium	0.004	<0.00357	<0.01	<0.01	<0.01	<0.00357	0.005	<0.01	<0.01	<0.01
Cobalt						<0.00293				
Copper	0.008	0.007	<0.01	<0.01	<0.01	0.01	0.012	<0.01	<0.01	0.02
Iron	3.92	1.78	<0.1	0.13	0.06	2.66	5.45	<0.1	0.12	0.09
Lead	<0.0074		<0.001	<0.01	<0.003	0.038	<0.0074	<0.001	<0.01	0.007
Magnesium						72.8				
Manganese						1.22				
Nickel						0.009				
Phosphorus						0.162				
Potassium						30.6				
Selenium	<0.0131	<0.005	0.0089	<0.005	0.016	<0.005	<0.0131	0.011	<0.005	0.021
Silver						<0.000274				
Sodium						874				
Thallium						<0.0112				
Vanadium						<0.005				
Zinc	0.041 J	<0.000666	<0.02	0.01	0.01	0.005	0.056 J	<0.02	<0.01	0.02
Dissolved Metals (mg/L)										
Aluminum						<0.00984				
Antimony						<0.0116				
Arsenic		<0.0036				<0.0043				
Barium						0.104				
Beryllium						<0.000178				
Cadmium		<0.000577				<0.000577				
Calcium						149				
Chromium		<0.00357				<0.00357				
Cobalt						<0.00293				

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-10 8/14/2007	SEP-10+S50 1/11/2007	SEP-11 2/14/2005	SEP-11 9/1/2005	SEP-11 2/15/2006	SEP-11 1/11/2007	SEP-11 8/14/2007	SEP-12 2/14/2005	SEP-12 9/1/2005	SEP-12 2/15/2006
Copper		<0.00127				<0.0014				
Iron		<0.00281				<0.00281				
Lead		<0.00398				<0.00398				
Magnesium						66.2				
Manganese						1.3				
Nickel						0.006				
Phosphorus						<0.0123				
Potassium						27.5				
Selenium		<0.00556				<0.00556				
Silver						<0.000199				
Sodium						796				
Thallium						<0.0189				
Vanadium						<0.005				
Zinc		<0.003				<0.003				
Water Quality Parameters (mg/L)										
Bromide						1.87				
Phosphate						<0.128				
Bicarbonate Alkalinity						340				
Carbonate Alkalinity						<1				
Chloride						659				
Hydroxide Alkalinity						<1				
Nitrate						<0.053				
pH (SU)	8.37		9.2	8.2	8.4	7.59	8.33	9.2	8.4	8.6
Specific Conductivity (umhos/cm)	876		3800	887	3970	4420	878	5500	1180	4080
Sulfate						1360				
Total Alkalinity						340				
Total Dissolved Solids	592		2400	614	2970	2720	584	3700	912	3100
Total Organic Carbon						**3.7**				

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-12 1/11/2007	SEP-12 8/14/2007	SEP-13 2/14/2005	SEP-13 9/1/2005	SEP-13 2/15/2006	SEP-13 1/11/2007	SEP-13 8/14/2007	SEP-2 2/14/2005	SEP-2 9/1/2005	SEP-2 2/15/2006
Total Metals (mg/L)										
Aluminum	0.448					1.32				
Antimony	<0.0116					<0.0116				
Arsenic	0.178	<0.0043	0.049	0.008	0.139	0.178	<0.0043	0.058	0.015	0.109
Barium	0.09					0.09				
Beryllium	0.006					0.007				
Cadmium	0.003	<0.0014	<0.001	<0.001	<0.001	0.003	<0.0014	<0.001	<0.001	<0.001
Calcium	143					142				
Chromium	<0.00357	0.004	<0.01	<0.01	<0.01	<0.00357	0.004	<0.01	<0.01	<0.01
Cobalt	<0.00293					<0.00293				
Copper	0.005	0.01	0.028	<0.01	<0.01	0.008	0.01	<0.01	<0.01	<0.01
Iron	0.458	4.15	<0.1	0.15	0.04	1.05	4.27	<0.1	0.16	0.05
Lead	0.017	<0.0074	0.0087	<0.01	<0.003	<0.0031	<0.0074	<0.001	<0.01	<0.003
Magnesium	61.7					61.9				
Manganese	0.981					0.861				
Nickel	0.007					0.006				
Phosphorus	0.142					0.247				
Potassium	27.6					24.9				
Selenium	<0.005	<0.0131	<0.005	<0.005	0.017	<0.005	<0.0131	0.011	0.006	0.027
Silver	<0.000274					<0.000274				
Sodium	880					876				
Thallium	<0.0112					<0.0112				
Vanadium	<0.005					<0.005				
Zinc	<0.000666	0.064 J	<0.02	0.01	<0.01	<0.000666	0.059 J	<0.02	0.01	0.01
Dissolved Metals (mg/L)										
Aluminum	<0.00984					<0.00984				
Antimony	<0.0116					<0.0116				
Arsenic	0.168					0.173				
Barium	0.097					0.091				
Beryllium	<0.000178					<0.000178				
Cadmium	<0.000577					<0.000577				
Calcium	131					133				
Chromium	<0.00357					<0.00357				
Cobalt	<0.00293					<0.00293				

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-12 1/11/2007	SEP-12 8/14/2007	SEP-13 2/14/2005	SEP-13 9/1/2005	SEP-13 2/15/2006	SEP-13 1/11/2007	SEP-13 8/14/2007	SEP-2 2/14/2005	SEP-2 9/1/2005	SEP-2 2/15/2006
Copper	<0.0014					<0.0014				
Iron	<0.00281					<0.00281				
Lead	<0.00398					<0.00398				
Magnesium	58.3					58.6				
Manganese	1.09					0.96				
Nickel	<0.00045					<0.00045				
Phosphorus	0.062					0.061				
Potassium	26.2					23.4				
Selenium	<0.00556					<0.00556				
Silver	<0.000199					<0.000199				
Sodium	836					832				
Thallium	<0.0189					<0.0189				
Vanadium	<0.005					<0.005				
Zinc	<0.003					<0.003				
Water Quality Parameters (mg/L)										
Bromide	2.04					1.89				
Phosphate	<0.128					<0.128				
Bicarbonate Alkalinity	306					322				
Carbonate Alkalinity	<1					<1				
Chloride	663					651				
Hydroxide Alkalinity	<1					<1				
Nitrate	1.55					2.35				
pH (SU)	7.6	8.39	9.5	8.4	8.6	7.49	8.35	8.9	8.4	8.5
Specific Conductivity (umhos/cm)	4550	884	3300	672	4010	4520	885	3800	674	4070
Sulfate	1280					1360				
Total Alkalinity	306					322				
Total Dissolved Solids	2650	632	2000	480	3060	2650	610	2400	466	3120
Total Organic Carbon	**2.93**					**3.46**				

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-2 1/10/2007	SEP-2 8/14/2007	SEP-3 2/8/2005	SEP-3 9/1/2005	SEP-3 2/14/2006	SEP-3 8/15/2006	SEP-3 1/10/2007	SEP-3 8/14/2007	SEP-4 9/1/2005	SEP-4 2/15/2006
Total Metals (mg/L)										
Aluminum	0.569						0.185			
Antimony	<0.0116						<0.0116			
Arsenic	0.099 J	<0.0043	0.019	0.005	0.012	<0.01	0.071 J	<0.0043	0.006	0.123
Barium	0.104						0.072			
Beryllium	0.007						0.009			
Cadmium	0.003	<0.0014	<0.001 UJ	<0.001	<0.001	<0.001	0.002	<0.0014	<0.001	<0.001
Calcium	163						105			
Chromium	<0.00357	0.005	<0.01	<0.01	<0.01	<0.01	<0.00357	0.005	<0.01	<0.01
Cobalt	<0.00293						<0.00293			
Copper	0.006	0.01	<0.01	<0.01	<0.01	0.012	0.005	0.011	<0.01	0.02
Iron	0.568	4.63	<0.1	0.11	<0.03	3.95	0.191	4.39	0.12	0.1
Lead	<0.0031	<0.0074	<0.001 UJ	<0.01	<0.003	<0.005	<0.0031	0.028	<0.01	0.007
Magnesium	71.8						25.5			
Manganese	1.02						0.183			
Nickel	0.011						0.006			
Phosphorus	0.103						0.654			
Potassium	29.2						13			
Selenium	<0.005 UJ	<0.0131	<0.005 UJ	<0.005	<0.005	<0.01	<0.005 UJ	<0.0131	<0.005	0.017
Silver	<0.000274						<0.000274			
Sodium	863						432			
Thallium	<0.0112						<0.0112			
Vanadium	<0.005						0.006			
Zinc	0.006	0.074 J	0.038	<0.01	0.02	0.029	0.02	0.078 J	<0.01	0.02
Dissolved Metals (mg/L)										
Aluminum	<0.00984						<0.00984			
Antimony	<0.00326						<0.00326			
Arsenic	<0.0036						0.07			
Barium	<0.00045						0.059			
Beryllium	<0.000178						0.009			
Cadmium	<0.000577						0.002			
Calcium	162						116			
Chromium	<0.00357						<0.00357			
Cobalt	<0.00293						<0.00293			

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-2 1/10/2007	SEP-2 8/14/2007	SEP-3 2/8/2005	SEP-3 9/1/2005	SEP-3 2/14/2006	SEP-3 8/15/2006	SEP-3 1/10/2007	SEP-3 8/14/2007	SEP-4 9/1/2005	SEP-4 2/15/2006
Copper	<0.00127						0.003 J			
Iron	<0.00281						<0.00281			
Lead	<0.00398						<0.00398			
Magnesium	72.5						29.1			
Manganese	<0.000297						0.131			
Nickel	<0.00045						0.006			
Phosphorus	<0.0229						0.476			
Potassium	31.6						15.2			
Selenium	<0.00556						<0.00556			
Silver	<0.000199						<0.000199			
Sodium	873						468			
Thallium	<0.0277						<0.0277			
Vanadium	<0.005						0.006			
Zinc	<0.003						0.016			
Water Quality Parameters (mg/L)										
Bromide	2.67						<0.214			
Phosphate	<0.128						<0.128			
Bicarbonate Alkalinity	338						218			
Carbonate Alkalinity	<1						<1			
Chloride	677						369			
Hydroxide Alkalinity	<1						<1			
Nitrate	1.83						3.99			
pH (SU)	8.19	8.34	8.6	8.4	8.6	8.53	8.52	8.35	8.3	8.6
Specific Conductivity (umhos/cm)	5110	880	2800	679	2530	976	2590	912	645	4000
Sulfate	1490						500			
Total Alkalinity	338						218			
Total Dissolved Solids	7600	666	1700	478	1770	630	1520	594	443	3060
Total Organic Carbon	**8.94**						**5.63**			

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-4 1/10/2007	SEP-4 8/14/2007	SEP-6 2/8/2005	SEP-6 9/1/2005	SEP-6 2/14/2006	SEP-6 8/15/2006	SEP-6 1/10/2007	SEP-6 8/14/2007	SEP-7 2/8/2005	SEP-7 9/1/2005
Total Metals (mg/L)										
Aluminum	0.393						0.181			
Antimony	<0.0116						<0.0116			
Arsenic	0.179	<0.0043	0.02	<0.005	0.012	<0.01	<0.00489 UJ	<0.0043	0.013	<0.005
Barium	0.081						0.071			
Beryllium	0.006						0.008			
Cadmium	0.003	<0.0014	<0.001 UJ	<0.001	0.001	<0.001	0.002	<0.0014	<0.001 UJ	<0.001
Calcium	141						108			
Chromium	<0.00357	0.005	<0.01	<0.01	<0.01	<0.01	<0.00357	0.005	<0.01	<0.01
Cobalt	<0.00293						<0.00293			
Copper	0.011	0.011	0.011	<0.01	<0.01	0.013	0.004 J	0.012	<0.01	<0.01
Iron	0.459	4.35	0.31	0.16	<0.03	4.2	0.203	4.9	<0.1	0.13
Lead	<0.0031	<0.0074	0.0046 J	<0.01	<0.003	<0.005	<0.0031	<0.0074	<0.001 UJ	<0.01
Magnesium	61.4						26.3			
Manganese	0.659						0.184			
Nickel	0.009						0.006			
Phosphorus	2.51						0.541			
Potassium	22.6						13.2			
Selenium	<0.005 UJ	<0.0131	<0.005 UJ	<0.005	<0.005	<0.01	<0.005 UJ	<0.0131	<0.005 UJ	<0.005
Silver	<0.000274						<0.000274			
Sodium	845						446			
Thallium	<0.0112						<0.0112			
Vanadium	<0.005						0.007			
Zinc	0.022	0.105 J	0.032	0.01	0.02	0.031	0.018	0.057 J	0.037	0.01
Dissolved Metals (mg/L)										
Aluminum	<0.00984						<0.00984			
Antimony	<0.00326						<0.00326			
Arsenic	0.124						<0.0036			
Barium	0.068						0.061			
Beryllium	0.006						0.008			
Cadmium	0.003						0.002			
Calcium	138						124			
Chromium	<0.00357						<0.00357			
Cobalt	<0.00293						<0.00293			

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

Revised Supplemental Remedial Investgation Report
Former ASARCO Smelter Site

Parameter	SEP-4 1/10/2007	SEP-4 8/14/2007	SEP-6 2/8/2005	SEP-6 9/1/2005	SEP-6 2/14/2006	SEP-6 8/15/2006	SEP-6 1/10/2007	SEP-6 8/14/2007	SEP-7 2/8/2005	SEP-7 9/1/2005
Copper	0.006 J						0.003 J			
Iron	0.004 J						0.024			
Lead	<0.00398						<0.00398			
Magnesium	81.3						32.5			
Manganese	0.578						0.142			
Nickel	0.008						0.006			
Phosphorus	1.87						0.427			
Potassium	30.6						16.7			
Selenium	<0.00556						<0.00556			
Silver	<0.000199						<0.000199			
Sodium	868						515			
Thallium	<0.0277						<0.0277			
Vanadium	<0.005						0.006			
Zinc	<0.003						0.017			
Water Quality Parameters (mg/L)										
Bromide	2.09						<0.214			
Phosphate	1.73 J						<0.128			
Bicarbonate Alkalinity	290						222			
Carbonate Alkalinity	<1						<1			
Chloride	638						370			
Hydroxide Alkalinity	<1						<1			
Nitrate	2.66						4.24			
pH (SU)	8.52	8.31	8.6	8.4	8.5	8.51	8.52	8.37	8.6	8.4
Specific Conductivity (umhos/cm)	4570	902	2800	687	2480	982	2590	906	2700	684
Sulfate	1250						487			
Total Alkalinity	290						222			
Total Dissolved Solids	2500	598	1700	498	1730	638	1450	614	1700	488
Total Organic Carbon	**14.4**						**6.33**			

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

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Parameter	SEP-7 2/14/2006	SEP-7 8/15/2006	SEP-7 1/10/2007	SEP-7 8/14/2007	SEP-9 2/14/2005	SEP-9 9/1/2005	SEP-9 2/15/2006	SEP-9 1/10/2007	SEP-9 8/14/2007
Total Metals (mg/L)									
Aluminum			0.188					0.053	
Antimony			<0.0116					0.023 J	
Arsenic	0.009	<0.01	<0.00489 UJ	<0.0043	0.012	0.006	0.007	<0.00489	<0.0043
Barium			0.071					0.032	
Beryllium			0.005					0.007	
Cadmium	<0.001	<0.001	0.003	<0.0014	<0.001	<0.001	<0.001	0.003	<0.0014
Calcium			106					82.9	
Chromium	<0.01	<0.01	<0.00357	0.004	<0.01	<0.01	<0.01	<0.00357	0.005
Cobalt			<0.00293					<0.00293	
Copper	<0.01	0.012	0.005	0.009	<0.01	<0.01	<0.01	0.005	0.009
Iron	<0.03	1.33	0.234	4.27	<0.1	0.1	<0.03	0.067	4.21
Lead	<0.003	<0.005	0.01	<0.0074	<0.001	<0.01	<0.003	<0.0031	<0.0074
Magnesium			24.9					18	
Manganese			0.18					0.125	
Nickel			0.007					0.007	
Phosphorus			0.73					2.49	
Potassium			13.1					14.5	
Selenium	<0.005	<0.01	0.067 J	<0.0131	<0.005	<0.005	<0.005	<0.005 UJ	<0.0131
Silver			<0.000274					<0.000274	
Sodium			435					435	
Thallium			<0.0112					<0.0112	
Vanadium			0.006					0.006	
Zinc	0.02	0.024	0.026	0.034 J	0.031	0.01	0.03	0.032	0.056 J
Dissolved Metals (mg/L)									
Aluminum			<0.00984					<0.00984	
Antimony			<0.00326					<0.00326	
Arsenic			<0.0036					<0.0036	
Barium			0.059					0.029	
Beryllium			<0.000178					0.007	
Cadmium			0.003					0.003	
Calcium			114					80.8	
Chromium			<0.00357					<0.00357	
Cobalt			<0.00293					<0.00293	

Table I-4
Surface Water Sampling Results (ASARCO): February 2005 to August 2007

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Parameter	SEP-7 2/14/2006	SEP-7 8/15/2006	SEP-7 1/10/2007	SEP-7 8/14/2007	SEP-9 2/14/2005	SEP-9 9/1/2005	SEP-9 2/15/2006	SEP-9 1/10/2007	SEP-9 8/14/2007
Copper			0.004 J					0.002 J	
Iron			0.005 J					0.011	
Lead			<0.00398					<0.00398	
Magnesium			28					18.1	
Manganese			0.135					0.115	
Nickel			0.007					0.007	
Phosphorus			0.576					2.28	
Potassium			14.8					15	
Selenium			0.067					<0.00556	
Silver			<0.000199					<0.000199	
Sodium			459					437	
Thallium			<0.0277					<0.0277	
Vanadium			0.006					0.005	
Zinc			0.015					0.031	
Water Quality Parameters (mg/L)									
Bromide			<0.214					<0.214	
Phosphate			<0.583 UJ					2.52	
Bicarbonate Alkalinity			216					194	
Carbonate Alkalinity			<1					<1	
Chloride			362					475	
Hydroxide Alkalinity			<1					<1	
Nitrate			3.73					4.61	
pH (SU)	8.4	8.59	8.42	8.36	8.6	8.4	8.6	7.85	8.34
Specific Conductivity (umhos/cm)	2400	987	2620	905	2900	812	2410	2570	1060
Sulfate			504					424	
Total Alkalinity			216					194	
Total Dissolved Solids	1730	654	1500	638	1800	570	1690	1380	688
Total Organic Carbon			**7.65**					**7.35**	

Table I-4
Surface Water Sampling Results (ASARCO): February 2008 to August 2009

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Parameter	SEP-1 2/19/2008	SEP-1 9/19/2008	SEP-1 3/12/2009	SEP-1 8/17/2009	SEP-10 2/20/2008	SEP-10 9/19/2008	SEP-10 3/13/2009	SEP-10 8/17/2009	SEP-11 2/20/2008	SEP-11 9/19/2008	SEP-11 3/13/2009	SEP-11 8/4/2009	SEP-12 2/20/2008	SEP-12 9/19/2008	SEP-12 3/13/2009
Total Metals (mg/L)															
Arsenic	<0.0026	<0.0085	<0.00448	<0.00448	0.131	<0.0085	<0.00448	<0.00448	0.122	<0.0085	<0.00448	<0.00448	0.173	<0.0085	<0.00448
Cadmium	<0.0004	<0.0011	<0.000303	<0.000303	<0.0004	<0.0011	<0.000303	<0.000303	<0.0004	<0.0011	<0.000303	<0.000303	<0.0004	<0.0011	<0.000303
Chromium	<0.0005	<0.00201	<0.063 UJ	0.022	<0.0005	0.005	<0.055 UJ	0.025	0.005	0.004 J	<0.064 UJ	0.003 J	<0.0005	0.004 J	<0.062 UJ
Copper	0.005	0.007	0.027	0.035	0.004 J	0.009	0.037	0.038	0.026	0.016	0.036	0.014	0.013	0.005	0.034
Iron	0.545	4.8	7.4	19.3	1.02	4.87	13.6	21.1	2.1	4.56	13.3	2.98 J	0.425	4.2	11.8
Lead	0.005	<0.0046	<0.00326	<0.00326	<0.0036	<0.0046	<0.00326	<0.00326	<0.0036	<0.0046	<0.00326	<0.00326	<0.0036	<0.0046	<0.00326
Selenium	<0.0066	<0.0106	<0.00508	<0.00508	<0.0066	<0.0106	<0.00508	<0.00508	<0.0066	<0.0106	<0.00508	<0.00508	<0.0066	<0.0106	<0.00508
Zinc	0.025	0.026 J	0.033	0.066	0.005	0.027 J	0.065	0.066	0.047	0.032 J	0.06	0.028	0.008	0.016 J	0.049
Water Quality Parameters (mg/L)															
pH (SU)	8.53	8.43	8.31	8.13	7.77	8.4	8.25	8.16	7.82	8.38	8.29	8.43	7.96	8.31	8.14
Specific Conductivity (umhos/cm)	3270	1380	1020	795	4700	1470	1100	750	4800	1520	1000	749	4510	1590	1100
Total Dissolved Solids	2070	948 J	641	584	3390	1150 J	551 J	448	3300	852 J	550 J	458	3020	1350 J	567 J

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Surface Water Sampling Results (ASARCO): February 2008 to August 2009

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Parameter	SEP-12 8/17/2009	SEP-13 2/20/2008	SEP-13 3/13/2009	SEP-13 8/17/2009	SEP-2 2/20/2008	SEP-2 9/19/2008	SEP-2 3/13/2009	SEP-2 8/17/2009	SEP-3 2/19/2008	SEP-3 9/19/2008	SEP-3 3/12/2009	SEP-3 8/4/2009	SEP-4 2/20/2008	SEP-4 9/19/2008	SEP-4 3/13/2009
Total Metals (mg/L)															
Arsenic	<0.00448	0.163	<0.00448	<0.00448	0.135	<0.0085	<0.00448	<0.00448	<0.0026	<0.0085	0.005 J	<0.00448	0.104	0.013	<0.00448
Cadmium	<0.000303	<0.0004	<0.000303	<0.000303	<0.0004	<0.0011	<0.000303	<0.000303	<0.0004	<0.0011	<0.000303	<0.000303	<0.0004	<0.0011	<0.000303
Chromium	0.023	<0.0005	<0.066 UJ	0.025	0.002	0.004 J	<0.063 UJ	0.026	<0.0005	0.024	<0.000583	0.004 J	<0.0005	0.004 J	<0.059 UJ
Copper	0.03	0.031	0.036	0.038	0.009	0.008	0.034	0.048	0.006	0.01	<0.000843	0.005	0.027	0.011	0.035
Iron	19	0.509	12.4	20.2	0.833	4.11	12.2	21.5	0.396	5.01	6.1	3.16 J	0.473	4.33	12.5
Lead	<0.00326	0.018	<0.00326	<0.00326	<0.0036	<0.0046	<0.00326	<0.00326	0.007	<0.0046	<0.00326	<0.00326	0.012	<0.0046	<0.00326
Selenium	<0.00508	<0.0066	<0.00508	<0.00508	<0.0066	<0.0106	<0.00508	<0.00508	<0.0066	<0.0106	<0.00508	<0.00508	<0.0066	<0.0106	<0.00508
Zinc	0.064	0.054	0.067	0.084	0.019	0.028 J	0.053	0.076	0.034	0.044 J	0.035	0.012	0.012	0.053 J	0.053
Water Quality Parameters (mg/L)															
pH (SU)	8.14	7.99	8.25	8.15	8.1	8.33	8.22	8.16	8.54	8.38	8.33	8.4	8.16	8.28	8.18
Specific Conductivity (umhos/cm)	754	4330	1090	757	4950	1570	958	753	3140	1420	1050	783	4510	1740	1110
Total Dissolved Solids	542	2680	554 J	478	3270	908 J	520 J	582	2040	944 J	662	438	3090	1600 J	293

Table I-4
Surface Water Sampling Results (ASARCO): February 2008 to August 2009

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Parameter	SEP-4 8/4/2009	SEP-6 2/19/2008	SEP-6 9/19/2008	SEP-6 3/12/2009	SEP-6 8/17/2009	SEP-7 2/19/2008	SEP-7 9/19/2008	SEP-7 3/12/2009	SEP-7 8/4/2009	SEP-9 2/20/2008	SEP-9 9/19/2008	SEP-9 3/13/2009	SEP-9 8/4/2009
Total Metals (mg/L)													
Arsenic	<0.00448	<0.0026	<0.0085	<0.00448	<0.00448	<0.0026	<0.0085	<0.00448	<0.00448	<0.0026	<0.0085	<0.00448	<0.00448
Cadmium	<0.000303	<0.0004	<0.0011	<0.000303	<0.000303	<0.0004	<0.0011	<0.000303	<0.000303	<0.0004	<0.0011	<0.000303	<0.000303
Chromium	0.003 J	0.004	0.003 J	<0.027 UJ	0.022	<0.0005	0.004 J	<0.051 UJ	0.003 J	<0.0005	<0.00201	<0.055 UJ	0.02
Copper	0.005	0.021	<0.00129	0.012	0.043	<0.0009	0.008	0.025	0.007	0.004 J	0.06	0.036	0.008
Iron	3.47 J	2.24	3.25	6.13	19.7	0.457	4.95	7.36	3.07 J	0.341	2.44	11.2	2.17 J
Lead	<0.00326	<0.0036	<0.0046	<0.00326	<0.00326	<0.0036	<0.0046	<0.00326	<0.00326	<0.0036	<0.0046	<0.00326	<0.00326
Selenium	<0.00508	<0.0066	<0.0106	<0.00508	<0.00508	<0.0066	<0.0106	<0.00508	<0.00508	<0.0066	<0.0106	<0.00508	<0.00508
Zinc	0.016	0.135	0.018 J	0.035	0.075	0.028	0.028 J	0.039	0.016	0.041	0.038 J	0.062	0.024
Water Quality Parameters (mg/L)													
pH (SU)	8.34	8.51	8.4	8.32	8.13	8.51	8.37	8.33	8.4	8.02	8.2	8.15	8.3
Specific Conductivity (umhos/cm)	781	3230	1400	1050	795	3120	1420	1050	754	2480	1720	1390	967
Total Dissolved Solids	482	2150	972 J	643	546	2070	1120 J	662	479	1610	1120 J	692 J	618

Table I-4 Notes
Surface Water Sampling Results (ASARCO)

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Notes:
1. Blank cells indicate the parameter was not analyzed.
mg/L = milligram(s) per liter
SU = standard unit
umhos/cm = micromhos per centimeter

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.