

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis	As T	Cd Dis	Cd T	Cr Dis	Cr T	Cu Dis	Cu T	Fe Dis	Fe T	Pb Dis	Pb T	Se Dis	Se T	Zn Dis	Zn T
EM-4	8/1/97																
EM-4	8/26/97	0.009		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/17/97	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	0.005	0.005
EM-4	2/17/98	0.009		0.008	0.008	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	5/1/98	0.019		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/13/98	0.01		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/17/98	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	2/22/99	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	5/10/99	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/6/99	0.009	0.009	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	10/29/99			0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	1/25/00	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	4/26/00			0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	4/26/00			0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/7/00	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/1/00	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	2/9/01	0.007	0.007	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	5/7/01	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	7/18/01	0.019	0.019	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	10/31/01	0.04	0.045	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	2/7/02	0.01	0.01	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	5/1/02	0.014	0.012	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	7/7/02	0.011	0.01	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/7/02	0.011	0.013	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/1/02																
EM-4	8/1/97			0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/26/97	1.5	0.08	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/17/97	1.7	0.069	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	2/17/98	1.6	0.066	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	5/18/98	1.7	0.017	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/17/98	1.4	0.055	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/1/98	2	0.081	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	2/1/99	1.9	0.046	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	5/10/99	2.2	0.009	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/6/99	2.4	2.3	0.017	0.017	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/2/99	2.4	2.4	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	1/25/00	2.6	2.6	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	4/26/00	2.3	2.3	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/4/00	1.6	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/2/00	1.7	1.7	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	2/14/01	1.8	1.8	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	5/9/01	1.5	1.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	7/19/01	1.5	1.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	11/17/01	1.5	1.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	2/8/02	1.2	1.2	0.027	0.027	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	5/2/02	1.1	1.2	0.01	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003
EM-4	8/8/02	0.88	0.2	0.01	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.003	0.003	0.003	0.003

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Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EM-5	11/6/02	1	1	0.12	0.13	0.01	U	0.01	U	0.025	U	0.04	1.6	1.7	0.003	U	0.12
EM-5	11/6/02	0.97	1	0.12	0.13	0.01	U	0.011	U	0.025	U	0.045	1.6	1.7	0.003	U	0.11
EM-6	8/11/97	0.03		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.11	U	0.01	U
EM-6	8/11/97	0.027		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.11	U	0.027	U
EM-6	11/17/97	0.026		0.005	U	0.005	U	0.045	U	0.1	U	0.003	U	0.11	U	0.039	U
EM-6	2/17/98	0.028		0.006	U	0.01	U	0.043	U	0.1	U	0.003	U	0.1	U	0.045	U
EM-6	5/18/98	0.025		0.005	U	0.01	U	0.045	U	0.1	U	0.003	U	0.099	U	0.052	U
EM-6	5/18/98	0.024		0.005	U	0.01	U	0.044	U	0.1	U	0.003	U	0.098	U	0.044	U
EM-6	8/17/98	0.021		0.005	U	0.01	U	0.043	U	0.1	U	0.003	U	0.12	U	0.037	U
EM-6	11/11/98	0.031		0.006	U	0.01	U	0.063	U	0.1	U	0.003	U	0.376	U	0.12	U
EM-6	2/11/99	0.024		0.007	U	0.01	U	0.041	U	0.1	U	0.003	U	0.097	U	0.057	U
EM-6	5/10/99	0.025		0.007	U	0.01	U	0.052	U	0.1	U	0.005	U	0.07	U	0.056	U
EM-6	8/6/99	0.042	JA	0.007	0.007	0.01	U	0.01	U	0.059	0.067	0.1	U	0.1	U	0.071	0.1
EM-6	8/6/99	0.033	JA	0.032	0.007	0.01	U	0.01	U	0.06	0.065	0.1	U	0.1	U	0.076	0.1
EM-6	11/2/99			0.037	0.007	0.01	U		U	0.069	0.12	0.12	U	0.066	U		0.1
EM-6	1/25/00			0.024	0.005	U	0.01	U	U	0.025	0.1	0.12	U	0.083	U		0.024
EM-6	4/26/00			0.022	0.005	U	0.01	U	U	0.035	0.1	U	U	0.068	U		0.037
EM-6	8/4/00			0.022	0.005	U	0.01	U	U	0.031	1.2	U	U	0.072	U		0.026
EM-6	11/3/00			0.024	0.005	U	0.01	U	U	0.025	0.12	U	U	0.076	U		0.035
EM-6	2/14/01			0.027	0.005	U	0.01	U	U	0.025	0.1	U	U	0.067	U		0.05
EM-6	2/14/01			0.025	0.005	U	0.01	U	U	0.025	0.1	U	U	0.067	U		0.051
EM-6	5/9/01			0.025	0.005	U	0.01	U	U	0.025	0.1	U	U	0.067	U		0.051
EM-6	7/19/01	0.04	0.042	0.005	U	0.005	U	0.01	U	0.025	U	0.025	U	0.003	U	0.088	0.032
EM-6	11/1/01	0.052	0.05	0.005	U	0.005	U	0.01	U	0.025	U	0.025	U	0.003	U	0.085	0.035
EM-6	2/8/02	0.044	0.04	0.005	U	0.005	U	0.01	U	0.025	U	0.025	U	0.003	U	0.082	0.032
EM-6	5/2/02	0.04	0.041	0.005	U	0.005	U	0.01	U	0.025	U	0.025	U	0.003	U	0.074	0.038
EM-6	8/8/02	0.031	0.034	0.007	0.007	0.01	U	0.01	U	0.025	U	0.027	U	0.003	U	0.069	0.037
EM-6	11/4/02																
EM-7	11/17/97	1.7		0.021		0.008		0.067		0.33		0.038		0.13		0.11	
EM-7	2/19/98	2.1		0.009		0.01	U	0.055		0.34	JA	0.03		0.055		0.078	JA
EM-7	5/7/98	1.8		0.018		0.01	U	0.033		0.2		0.039		0.055		0.11	
EM-7	8/20/98	2.3		0.019		0.01	U	0.042		0.16		0.032		0.037		0.1	
EM-7	11/11/98	2.1		0.014		0.01	U	0.025	U	0.29		0.019		0.02		0.079	
EM-7	2/24/99	2		0.011		0.01	U	0.049		0.18		0.025		0.051		0.093	
EM-7	5/12/99	2.4		0.005		0.01	U	0.025	U	0.27		0.011		0.006		0.039	
EM-7	8/6/99	2.4	2.2	0.023	0.073	0.01	U	0.056	0.16	0.17	1.4	0.034	0.63	0.03	0.037	0.073	0.31
EM-7	10/30/99		3.3		0.26		0.036		0.81		2.9		1.5		0.077		0.8
EM-7	1/31/00		2.1		0.29		0.043		1.3		4		2		0.071		1
EM-7	2/14/01																
EM-7	5/9/01																
EP-100	10/20/99		0.008		0.022		0.01	U	0.025	U	0.34		0.007		0.42		0.13
EP-100	1/26/00		0.02		0.043		0.01	U	0.034		1.3		0.01		0.42		0.24
EP-100	4/28/00		0.019		0.031		0.01	U	0.039		2.1	JA	0.009		0.54		0.22
EP-100	8/7/00		0.014		0.027		0.01	U	0.03		1.9		0.005		0.52		0.18
EP-100	11/7/00		0.015		0.02		0.01	U	0.025	U	0.79	JA	0.003	U	0.52		0.12
EP-100	2/20/01		0.016		0.019		0.01	U	0.025	U	1.9		0.004		0.58		0.25
EP-100	5/9/01		0.021		0.032		0.01	U	0.025	U	2.3		0.007		0.58		0.43
EP-100	7/20/01	0.023	0.023	0.015	0.015	0.01	U	0.01	U	0.025	U	0.81	0.003	U	0.54	0.55	0.13
EP-100	11/5/01	0.029	0.027	0.013	0.012	0.01	U	0.01	U	0.025	U	1.3	0.003	U	0.58	0.53	0.099
EP-100	2/12/02	0.023	0.025	0.023	0.021	0.01	U	0.015	JA	0.025	U	0.028	JA	0.003	U	0.51	0.5

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EP-100	5/9/02	0.08	0.1	0.015	0.015	0.01	0.019	0.025	0.051	0.1	1.6	0.003	0.007	0.59	0.55	0.14	0.18
EP-100	8/12/02	0.015	0.038	0.016	0.016	0.01	0.01	0.025	0.026	0.1	0.51	0.003	0.007	0.52	0.53	0.16	0.17
EP-100	11/11/02																
EP-101	10/21/99		7.2		0.78		0.01		0.028		2.0		0.015		2.1		0.16
EP-101	1/25/00		4.5		0.72		0.01		0.025		1.6		0.018		2.8		0.048
EP-101	4/26/00		6.3		1.1		0.01		0.023		0.64		0.033		3.5		0.1
EP-101	8/4/00		6.8		1.3		0.01		0.026		2.1		0.012		3.4		0.13
EP-101	11/2/00		7.3		1.7		0.01		0.029		1.8		0.01		3.1		0.34
EP-101	2/9/01		6.3		1.4		0.01		0.025		0.31		0.004		2.4		0.25
EP-101	5/8/01		4.7		1.6		0.01		0.025		0.55		0.005		1.7		0.32
EP-101	7/18/01	5.3	5.2	1.5	1.6	0.01	0.01	0.025	0.029	0.1	0.95	0.003	0.007	1.7	0.9	0.38	0.32
EP-101	10/31/01	5.8	5.4	1.6	1.5	0.01	0.01	0.025	0.03	0.1	3.4	0.003	0.02	1.5	1.5	0.34	0.31
EP-101	2/7/02	4.9	5	1.7	1.8	0.01	0.01	0.025	0.051	0.1	5.7	0.003	0.032	1.3	1.4	0.3	0.35
EP-101	5/2/02	5.3	5.1	1.2	1.2	0.01	0.01	0.025	0.037	0.65	1.7	0.008	0.011	1.1	1	0.2	0.25
EP-101	8/7/02	5.1	5.5	1.5	1.7	0.01	0.01	0.032	0.052	0.1	1	0.003	0.009	1.3	1.4	0.35	0.39
EP-101	11/5/02	5.5	5.4	1.9	1.8	0.01	0.01	0.025	0.019	0.1	1.2	0.003	0.008	1.1	1.1	0.4	0.38
EP-102	10/21/99		0.21		0.05		0.01		0.025		0.1		0.004		5		0.044
EP-102	1/25/00		0.21		0.075		0.01		0.025		0.48		0.012		4.8		0.045
EP-102	4/26/00		0.26		0.095		0.01		0.025		1.4		0.012		3.7		0.069
EP-102	8/4/00		0.28		0.099		0.01		0.025		1.2		0.009		3.6		0.053
EP-102	11/1/00		0.24		0.053		0.01		0.025		1.1		0.007		2.4		0.063
EP-102	2/9/01		0.38		0.095		0.01		0.025		1.4		0.012		4		0.077
EP-102	5/8/01		0.4		0.11		0.01		0.025		0.96		0.006		5.7		0.11
EP-102	7/18/01	0.3	0.3	0.13	0.17	0.01	0.01	0.025	0.025	0.1	1.2	0.003	0.01	0.8	0.4	0.048	0.07
EP-102	10/31/01	0.46	0.4	0.17	0.17	0.01	0.01	0.025	0.025	0.1	1.2	0.003	0.007	0.7	0.4	0.04	0.046
EP-102	2/7/02	0.38	0.45	0.15	0.18	0.01	0.01	0.025	0.025	0.1	1.9	0.003	0.01	7.9	8.3	0.021	0.04
EP-102	5/2/02	0.32	0.38	0.13	0.12	0.01	0.01	0.025	0.025	0.1	0.85	0.003	0.007	5.3	4.7	0.035	0.076
EP-102	8/7/02	0.38	0.44	0.092	0.096	0.01	0.01	0.025	0.025	0.1	0.46	0.003	0.004	6.8	7.5	0.047	0.051
EP-102	11/11/02																
EP-103	10/21/99		0.005		0.005		0.01		0.025		0.15		0.003		0.22		0.027
EP-103	1/24/00		0.011		0.005		0.01		0.025		0.55		0.013		0.16		0.02
EP-103	4/26/00		0.016		0.005		0.01		0.025		1.3		0.01		0.19		0.028
EP-103	8/4/00		0.023		0.007		0.01		0.025		0.28		0.003		0.23		0.02
EP-103	11/2/00		0.008		0.005		0.01		0.025		0.32		0.003		0.27		0.029
EP-103	2/12/01		0.022		0.005		0.01		0.025		0.14		0.003		0.20		0.047
EP-103	5/8/01		0.019		0.007		0.01		0.025		0.06		0.003		0.26		0.041
EP-103	7/19/01	0.044	0.04	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.001	0.27	0.27	0.02	0.02
EP-103	11/1/01	0.062	0.059	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.33	0.003	0.007	0.2	0.21	0.02	0.02
EP-103	2/8/02	0.023	0.021	0.012	0.013	0.01	0.01	0.025	0.025	0.1	0.18	0.003	0.003	0.24	0.24	0.02	0.024
EP-103	5/1/02	0.026	0.024	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.005	0.27	0.32	0.02	0.037
EP-103	8/7/02	0.023	0.023	0.01	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.26	0.27	0.02	0.036
EP-103	11/11/02																
EP-104	10/21/99		0.071		0.005		0.01		0.025		0.41		0.006		0.11		0.02
EP-104	1/24/00		0.08		0.005		0.01		0.025		0.9		0.015		0.093		0.023
EP-104	4/26/00		0.072		0.005		0.01		0.025		2.2		0.015		0.085		0.043
EP-104	8/4/00		0.082		0.005		0.01		0.025		0.63		0.008		0.096		0.026
EP-104	11/1/00		0.091		0.005		0.01		0.025		1.4		0.011		0.097		0.065
EP-104	2/12/01		0.084		0.005		0.01		0.025		0.2		0.003		0.1		0.041
EP-104	2/12/01		0.087		0.005		0.01		0.025		0.15		0.003		0.11		0.048
EP-104	5/8/01		0.081		0.005		0.01		0.025		0.62		0.005		0.1		0.072

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-104	7/18/01	0.091	0.095	0.013	0.013	0.01	U	0.01	U	0.025	U	0.003	U	0.006	U	0.11	0.027
EP-104	10/31/01	0.093	0.085	0.005	0.005	0.01	U	0.01	U	0.025	U	0.01	U	0.006	U	0.095	0.087
EP-104	2/8/02	0.091	0.092	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.004	U	0.094	0.094
EP-104	5/1/02	0.082	0.077	0.005	U	0.003	U	0.01	U	0.01	U	0.003	U	0.004	U	0.09	0.09
EP-104	8/8/02	0.084	0.086	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.003	U	0.094	0.094
EP-104	8/8/02	0.083	0.083	0.005	U	0.003	U	0.01	U	0.01	U	0.003	U	0.003	U	0.095	0.093
EP-104	11/5/02	0.088	0.086	0.038	0.034	0.01	U	0.01	U	0.025	U	0.017	U	0.003	U	0.086	0.085
EP-105	10/21/99		0.3		0.005	U	0.01		0.025	U	0.01		0.012		0.068		0.055
EP-105	1/25/00		0.4		0.005	U	0.01		0.078	U	0.01		0.076		0.034		0.18
EP-105	4/26/00		0.051		0.005	U	0.01		0.025	U	0.01		0.011		0.005		0.049
EP-105	8/4/00		0.6		0.005	U	0.01		0.045	U	0.01		0.018		0.039		0.089
EP-105	11/1/00		0.099		0.005	U	0.01		0.036	U	0.01		0.012		0.034		0.083
EP-105	2/14/01		0.84		0.005	U	0.01		0.025	U	0.01		0.008		0.034		0.078
EP-105	5/9/01		0.17		0.005	U	0.01		0.2	U	0.01		0.1		0.025		0.39
EP-105	7/19/01	0.94	0.97	0.005	U	0.005	U	0.01	U	0.01	U	0.026	U	0.005	U	0.057	0.067
EP-105	11/1/01	0.21	0.23	0.005	U	0.006	U	0.01	U	0.011	U	0.026	U	0.003	U	0.047	0.067
EP-105	2/11/02	0.21	0.23	0.005	U	0.005	U	0.01	U	0.01	U	0.049	U	0.003	U	0.094	0.094
EP-105	5/2/02	0.22	0.22	0.005	U	0.005	U	0.01	U	0.01	U	0.034	U	0.003	U	0.034	0.032
EP-105	8/8/02	0.17	0.21	0.005	U	0.005	U	0.01	U	0.01	U	0.031	U	0.003	U	0.018	0.03
EP-105	11/25/02	0.15	0.23	0.005	U	0.005	U	0.01	U	0.01	U	0.028	U	0.003	U	0.016	0.032
EP-106	10/21/99		0.005	U	0.005	U	0.01	U	0.025	U	0.01		0.004		0.087		0.053
EP-106	1/25/00		0.007		0.005	U	0.01	U	0.025	U	0.01		0.004		0.003		0.027
EP-106	4/26/00		0.005	U	0.005	U	0.01	U	0.025	U	0.01		0.003		0.01		0.02
EP-106	8/2/00		0.006		0.005	U	0.01	U	0.025	U	0.01		0.006		0.01		0.02
EP-106	11/2/00		0.007		0.005	U	0.01	U	0.025	U	0.01		0.003		0.012		0.041
EP-106	2/12/01		0.017		0.015	U	0.01	U	0.025	U	0.01		0.006		0.012		0.057
EP-106	5/9/01		0.014		0.005	U	0.01	U	0.025	U	0.01		0.003		0.012		0.1
EP-106	7/18/01	0.05	0.049	0.073	0.07	0.01	U	0.01	U	0.025	U	0.01	U	0.003	U	0.053	0.057
EP-106	10/31/01	0.041	0.037	0.017	0.017	0.01	U	0.01	U	0.025	U	0.01	U	0.003	U	0.012	0.095
EP-106	2/8/02	0.019	0.019	0.017	U	0.01	U	0.01	U	0.025	U	0.01	U	0.003	U	0.01	0.13
EP-106	5/1/02	0.015	0.015	0.003	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.097	0.096
EP-106	8/8/02	0.01	0.014	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.011	0.012
EP-106	11/7/02	0.98	1.3	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.009	0.012
EP-106	11/11/02																0.034
EP-107	10/21/99		0.015		0.005	U	0.01	U	0.025	U	0.01		0.003		0.49		0.027
EP-107	1/24/00		0.012		0.005	U	0.01	U	0.025	U	0.01		0.009		0.42		0.02
EP-107	4/23/00		0.022		0.005	U	0.01	U	0.025	U	0.01		0.003		0.44		0.039
EP-107	8/3/00		0.022		0.005	U	0.01	U	0.025	U	0.01		0.005		0.42		0.024
EP-107	11/5/00		0.029		0.029	U	0.01	U	0.025	U	0.01		0.003		0.42		0.035
EP-107	2/12/01		0.03		0.005	U	0.01	U	0.025	U	0.01		0.003		0.45		0.074
EP-107	5/8/01		0.026		0.006	U	0.01	U	0.025	U	0.01		0.003		0.45		0.073
EP-107	7/17/01	0.019	0.022	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.012	0.098
EP-107	10/31/01	0.066	0.055	0.041	0.039	0.01	U	0.01	U	0.025	U	0.01	U	0.003	U	0.049	0.047
EP-107	2/20/02	0.057	0.056	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.049	0.038
EP-107	5/1/02	0.039	0.033	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.43	0.42
EP-107	8/20/02	0.028	0.029	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.45	0.45
EP-107	8/20/02	0.03	0.028	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.43	0.46
EP-107	11/11/02																0.02
EP-108	10/26/99		0.7	U	0.005	U	0.01	U	0.025	U	0.01		0.004		0.017		0.06
EP-108	1/28/00		1.4		0.005	U	0.01	U	0.025	U	0.01		0.006		0.046		0.034

Appendix H

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-108	5/2/00		1.2		0.003 U		0.01 U		0.025 U		0.49		0.006		0.041		0.027
EP-108	8/9/00		1.3		0.005 U		0.01 U		0.025 U		0.12		0.005		0.051		0.021
EP-108	11/9/00		1.2		0.005 U		0.01 U		0.025 U		0.11		0.003 U		0.05		0.02
EP-108	2/15/01		1.1		0.005 U		0.01 U		0.025 U		0.51		0.004		0.049		0.014
EP-108	5/14/01		1.1		0.005 U		0.01 U		0.025 U		0.57		0.007		0.043		0.031
EP-108	7/25/01	1.2	1.2	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.48	0.003 U	0.003	0.045	0.045	0.005 U	0.023
EP-108	11/12/01	1.1	1.2	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.65	0.003 U	0.009	0.045	0.057	0.02 U	0.037
EP-108	2/19/02	1.1	1.1	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.027	0.1 U	0.18	0.003 U	0.008	0.046	0.048	0.02 U	0.023
EP-108	5/7/02	1.1	1	0.005 U	0.005 U	0.01 U	0.022	0.025 U	0.074	0.1 U	0.63	0.003 U	0.008	0.044	0.04	0.02 U	0.038
EP-108	8/20/02	1.2	1.2	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.18	0.003 U	0.003 U	0.041	0.04	0.02 U	0.02
EP-108	11/13/02	0.94	0.95	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.32	0.003 U	0.003 U	0.039	0.04	0.02 U	0.02
EP-108	11/13/02	0.94	0.93	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.28	0.003 U	0.003 U	0.039	0.039	0.02 U	0.02
EP-109	10/26/99		0.007		0.005 U		0.01 U		0.025 U		0.91		0.003 U		0.003		0.02
EP-109	1/28/00		0.014		0.005 U		0.01 U		0.025 U		1.2		0.003 U		0.004		0.026
EP-109	5/2/00		0.016		0.005 U		0.01 U		0.025 U		0.76		0.006		0.003		0.026
EP-109	8/9/00		0.011		0.005 U		0.01 U		0.025 U		0.16		0.003 U		0.006		0.022
EP-109	11/9/00		0.019		0.005 U		0.01 U		0.025 U		0.22		0.003 U		0.004		0.02
EP-109	2/15/01		0.014		0.005 U		0.01 U		0.025 U		0.89		0.005		0.008		0.009
EP-109	5/14/01		0.013		0.005 U		0.01 U		0.025 U		0.19		0.003 U		0.007		0.006
EP-109	7/25/01	0.033	0.026	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.28	0.003 U	0.003 U	0.007	0.07	0.02 U	0.023
EP-109	11/12/01	0.042	0.048	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.1	0.003 U	0.003 U	0.046	0.036	0.02 U	0.02
EP-109	2/15/02	0.01	0.01	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.1	0.003 U	0.003 U	0.047	0.047	0.02 U	0.02
EP-109	5/7/02	0.021	0.021	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.4	0.003 U	0.005	0.056	0.048	0.02 U	0.025
EP-109	8/14/02	0.018	0.02	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.23	0.003 U	0.003 U	0.05	0.048	0.021	0.02
EP-109	11/11/02																
EP-110	10/29/99		0.005 U		0.005 U		0.01 U		0.025 U		1.3		0.013		0.017		0.02
EP-110	1/24/00		0.009		0.005 U		0.01 U		0.025 U		0.78		0.02		0.017		0.048
EP-110	4/25/00		0.006		0.005 U		0.01 U		0.025 U		0.38		0.008		0.016		0.028
EP-110	8/2/00		0.007		0.005 U		0.01 U		0.025 U		0.1		0.005		0.017		0.02
EP-110	10/31/00		0.008		0.005 U		0.01 U		0.025 U		0.15		0.003 U		0.016		0.047
EP-110	2/8/01		0.008		0.005 U		0.01 U		0.025 U		0.14		0.004		0.017		0.037
EP-110	5/7/01		0.007		0.005 U		0.01 U		0.025 U		0.13		0.003 U		0.015		0.044
EP-110	7/17/01	0.013	0.013	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.12	0.003 U	0.003 U	0.016	0.016	0.026	0.032
EP-110	10/30/01	0.012	0.012	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.15	0.003 U	0.003 U	0.017	0.015	0.02	0.021
EP-110	2/7/02	0.012	0.012	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.31	0.003 U	0.007	0.017	0.02	0.02	0.02
EP-110	2/7/02	0.012	0.011	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.5	0.003 U	0.008	0.017	0.024	0.02	0.02
EP-110	4/30/02	0.013	0.012	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.1	0.003 U	0.004	0.016	0.016	0.02	0.02
EP-110	8/6/02	0.014	0.013	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.1 U	0.1	0.003 U	0.003 U	0.015	0.015	0.027	0.028
EP-110	11/11/02																
EP-111	10/28/99		0.97		0.005 U		0.01 U		0.039		1.3		0.047		0.01		0.13
EP-111	1/29/00		0.91		0.005 U		0.01 U		0.025 U		2		0.003 U		0.005		0.02
EP-111	5/2/00		0.83		0.005 U		0.01 U		0.025 U		1.4		0.004		0.01		0.02
EP-111	8/14/00		0.97		0.005 U		0.01 U		0.025 U		1.6		0.003 U		0.007		0.02
EP-111	11/10/00		1.1		0.005 U		0.01 U		0.025 U		1.6		0.003		0.007		0.023
EP-111	11/10/00		1.1		0.005 U		0.01 U		0.025 U		1.4		0.005		0.007		0.024
EP-111	2/21/01		0.98		0.005 U		0.01 U		0.025 U		1.6		0.003 U		0.007		0.047
EP-111	5/15/01		0.95		0.005 U		0.01 U		0.025 U		1.6		0.003 U		0.005		0.02
EP-111	7/31/01	0.98	0.93	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	1.3	1.4	0.003 U	0.003 U	0.011	0.008	0.02	0.025
EP-111	11/13/01	1	1.2	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	1.3	1.4	0.003 U	0.003 U	0.021	0.021	0.02	0.02
EP-111	2/20/02	1.1	0.95	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	1.5	1.5	0.003 U	0.003 U	0.005 U	0.009	0.02	0.02

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-111	5/11/02	1	1.1	0.005	0.005	0.01	0.01	0.025	0.025	1.4	1.5	0.001	0.001	0.027	0.01	0.01	0.019
EP-111	8/16/02	1.1	1.1	0.005	0.005	0.01	0.01	0.025	0.025	1.3	1.4	0.001	0.001	0.016	0.015	0.02	0.02
EP-111	8/16/02	1.1	1.2	0.005	0.005	0.01	0.01	0.025	0.025	1.4	1.3	0.001	0.001	0.015	0.017	0.02	0.02
EP-112	10/28/99		0.012		0.005		0.01		0.025				0.015		0.012		0.096
EP-112	1/29/00		0.013		0.005		0.01		0.025		0.18		0.003		0.007		0.02
EP-112	5/2/00		0.013	0.01	0.005		0.01		0.025		0.32		0.003		0.016		0.02
EP-112	8/14/00		0.015		0.005		0.01		0.025		0.42		0.003		0.016		0.02
EP-112	8/14/00		0.014		0.005		0.01		0.025		0.38		0.003		0.015		0.02
EP-112	11/10/00		0.03		0.005		0.01		0.025		0.29		0.003		0.012		0.02
EP-112	2/21/01		0.027		0.005		0.01		0.025		0.22		0.003		0.022		0.046
EP-112	5/15/01		0.012		0.005		0.01		0.025		0.22		0.003		0.01		0.022
EP-112	7/31/01	0.03	0.029	0.005	0.005	0.01	0.01	0.025	0.025	0.25	0.25	0.003	0.003	0.018	0.018	0.02	0.02
EP-112	11/13/01	0.038	0.041	0.005	0.005	0.01	0.01	0.025	0.025	0.23	0.28	0.003	0.003	0.016	0.026	0.02	0.02
EP-112	2/20/02	0.029	0.025	0.005	0.005	0.01	0.01	0.025	0.025	0.13	0.17	0.003	0.003	0.005	0.017	0.02	0.02
EP-112	5/11/02	0.025	0.023	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.14	0.003	0.003	0.015	0.016	0.02	0.02
EP-112	8/16/02	0.019	0.017	0.005	0.005	0.01	0.01	0.025	0.025	0.15	0.18	0.003	0.003	0.015	0.024	0.02	0.02
EP-112	11/7/02	0.022	0.023	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.012	0.023	0.02	0.02
EP-113	10/28/99		0.005		0.005		0.01		0.025		4.5		0.009		0.005		0.051
EP-113	1/29/00		0.005		0.005		0.01		0.025		1.3		0.003		0.005		0.02
EP-113	5/2/00		0.006		0.005		0.01		0.025		0.72		0.003		0.006		0.02
EP-113	8/14/00		0.005		0.005		0.01		0.025		0.67		0.003		0.005		0.02
EP-113	11/10/00		0.015		0.005		0.01		0.025		0.72		0.003		0.005		0.02
EP-113	2/21/01		0.016		0.005		0.01		0.025		0.51		0.003		0.007		0.043
EP-113	5/15/01		0.007		0.005		0.01		0.025		0.48		0.003		0.005		0.02
EP-113	7/31/01	0.013	0.013	0.005	0.005	0.01	0.01	0.025	0.025	0.66	0.78	0.003	0.003	0.005	0.005	0.02	0.02
EP-113	11/13/01	0.018	0.023	0.005	0.005	0.01	0.01	0.025	0.025	0.59	0.74	0.003	0.003	0.007	0.007	0.02	0.02
EP-113	2/20/02	0.013	0.008	0.005	0.005	0.01	0.01	0.025	0.025	0.44	0.62	0.003	0.003	0.005	0.005	0.02	0.02
EP-113	5/11/02	0.012	0.011	0.005	0.005	0.01	0.01	0.025	0.025	0.66	0.79	0.003	0.003	0.007	0.005	0.02	0.02
EP-113	5/11/02	0.012	0.012	0.005	0.005	0.01	0.01	0.025	0.025	0.63	0.78	0.003	0.003	0.008	0.014	0.02	0.02
EP-113	8/16/02	0.01	0.01	0.005	0.005	0.01	0.01	0.025	0.025	0.6	0.64	0.003	0.003	0.006	0.007	0.02	0.02
EP-113	11/7/02	0.011	0.011	0.005	0.005	0.01	0.01	0.025	0.025	0.65	0.72	0.003	0.003	0.005	0.006	0.02	0.02
EP-114	11/18/99		118		0.13		0.019		0.044		58		0.02		0.06		35
EP-114	1/31/00		214		2.7		0.16		11		361		6.6		0.12		75
EP-114	5/4/00		203		2.6		0.11		2.3		266		2.1		0.05		56
EP-114	8/14/00		240		1.7		0.066		1.6		210		1.1		0.063		51
EP-114	11/10/00		250		2.2		0.062		0.95		172		0.53		0.01		51
EP-114	5/4/01		292		3		0.044		1.5		473		0.87		0.17		109
EP-114	7/16/01	227	280	0.12	2.2	0.01	0.15	0.025	0.87	47	325	0.003	0.41	0.062	0.14	6.5	76
EP-114	10/30/01	314	323	0.1	1	0.01	0.11	0.025	0.34	48	174	0.003	0.16	0.049	0.056	7.2	59
EP-114	2/5/02	287	320	0.078	4	0.01	0.2	0.025	0.61	45	190	0.003	0.24	0.11	0.18	6.3	110
EP-114	4/29/02	277	290	0.087	3.7	0.01	0.19	0.025	0.4	44	195	0.003	0.23	0.1	0.12	7.5	118
EP-114	8/5/02	283	301	0.27	0.93	0.01	0.037	0.025	0.087	45	117	0.003	0.065	0.1	0.1	10	29
EP-114	11/4/02	318	316	0.14	0.84	0.01	0.03	0.025	0.12	48	101	0.01	0.12	0.02	0.02	8.4	24
EP-115	11/22/99		0.28		1.1		0.01		0.49		2.8		0.18		0.38		0.8
EP-115	1/31/00		0.26		0.19		0.01		0.14		0.87		0.03		0.42		0.24
EP-115	5/4/00		0.25		0.15		0.01		0.18		1.5		0.084		0.11		0.29
EP-115	8/14/00		0.25		0.14		0.01		0.18		0.18		0.037		0.31		0.24
EP-115	11/10/00		0.45		0.17		0.01		0.42		0.93		0.19		1.7		0.5
EP-115	2/23/01																
EP-115	5/4/01																

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l	
EP-115	7/16/01	0.29	0.29	0.13	0.13	0.01	U	0.01	U	0.14	0.2	0.1	U	0.03	0.077	0.1	0.45	
EP-115	10/30/01																	
EP-115	2/20/02																	
EP-115	4/29/02																	
EP-115	8/5/02																	
EP-115	11/4/02																	
EP-116	11/18/99		2.3		1.2		0.032		3.7		41		2		0.47		6	
EP-116	1/31/00		4.9		1.5		0.044		6.3		90		41		0.45		4.1	
EP-116	5/4/00		3.3		0.66		0.022		1.9		32		1.4		0.29		3.1	
EP-116	8/14/00		3.1		0.4		0.01	U	5.6		11		0.35		0.19		2.4	
EP-116	11/10/00		1.5		0.8		0.01	U	15		17		1.1		0.21		6.3	
EP-116	2/22/01		6		1.6		0.069		38		77		42		0.37		7.4	
EP-116	5/4/01		6.2		1.4		0.039		30		72		1.7		0.32		7.4	
EP-116	7/16/01	3.2	11	0.37	3.2	0.01	U	0.12	1.3	70	0.1	U	170	0.02	0.35	2.6	13	
EP-116	10/10/01	3.3	5.6	0.23	1	0.01	U	0.04	0.61	20	0.1	U	50	0.011	0.2	0.3	5.7	
EP-116	10/30/01	3.1	5.3	0.31	0.86	0.01	U	0.035	0.74	17	0.1	U	44	0.014	0.24	1.7	4.9	
EP-116	2/20/02	3	5.3	0.33	1.1	0.01	U	0.031	1.3	13	0.1	U	43	0.016	0.18	2.54	5.7	
EP-116	4/29/02	3.5	11	0.28	3.5	0.01	U	0.15	1.1	58	0.1	U	173	0.019	0.16	1.4	15	
EP-116	8/5/02	0.043	4.7	2.5	3	0.01	U	0.046	29	92	0.1	U	57	0.13	0.22	36	33	
EP-116	11/4/02	2.8	5.1	0.25	0.9	0.01	U	0.02	2	25	0.1	U	36	0.012	0.21	1.7	5.5	
EP-117	11/18/99		6		0.2		0.01	U	0.086		5.4		0.28		1.1		6.2	
EP-117	1/31/00		11		2.7		0.16		2.1		238		10		1.1		3.4	
EP-117	5/4/00		7.2		0.89		0.062		0.51		73		3.5		1.1		1.1	
EP-117	8/14/00		5.8		0.54		0.028		0.35		37		1.8		0.95		0.79	
EP-117	11/10/00		6.1		0.67		0.033		0.47		42		2.4		0.87		0.85	
EP-117	2/22/01		6.4		1.2		0.064		0.77		78		4.1		1.3		1.6	
EP-117	5/4/01		11		1.7		0.055		4.5		129		4.5		1.2		3.2	
EP-117	7/16/01	6.6	7.4	0.12	0.66	0.01	U	0.034	0.025	U	0.4	0.1	U	46	0.007	1.3	0.97	
EP-117	10/30/01	5.1	8.3	0.097	1.1	0.01	U	0.11	0.025	U	1.3	0.1	U	124	0.009	0.9	3	
EP-117	2/5/02	6.1	9.9	0.1	2.2	0.01	U	0.14	0.025	U	1.6	0.1	U	177	0.008	1.2	3.4	
EP-117	4/29/02	6.1	7.1	0.092	0.88	0.01	U	0.032	0.025	U	0.63	0.1	U	68	0.006	1.1	1.3	
EP-117	8/5/02	6	6.5	0.098	0.35	0.01	U	0.019	0.025	U	0.21	0.1	U	18	0.005	0.7	0.43	
EP-117	11/4/02	6.1	6.2	0.12	0.23	0.01	U	0.01	0.025	U	0.075	0.1	U	7.6	0.004	0.31	0.35	
EP-118	11/18/99		0.22		0.009		0.052		0.14		184		0.17		0.29		0.46	
EP-118	1/31/00		0.43		0.071		0.27		1.2		868		2.5		0.28		1.7	
EP-118	5/4/00		0.21		0.019		0.058		0.38		184		0.66		0.25		0.47	
EP-118	8/14/00		0.22		0.005	U	0.01		0.073		37		0.12		0.2		0.11	
EP-118	11/10/00		3		0.012		0.035		0.3		103		0.36		0.87		0.2	
EP-118	2/22/01		1.4		0.061		0.27		1.2		784		1.4		0.39		2.3	
EP-118	5/4/01		0.52		0.014		0.079		0.39		256		0.49		0.32		0.71	
EP-118	7/17/01	0.18	0.45	0.005	U	0.026	0.01	U	0.073	0.025	U	0.77	0.1	U	369	0.003	U	1.1
EP-118	10/29/01	0.15	0.21	0.005	U	0.009	0.01	U	0.034	0.025	U	0.17	0.1	U	98	0.003	U	0.22
EP-118	2/5/02	0.22	0.93	0.005	U	0.038	0.01	U	0.26	0.025	U	1	0.1	U	767	0.003	U	2.2
EP-118	4/29/02	1.4	2.8	0.005	U	0.074	0.01	U	0.26	0.025	U	1.4	0.1	U	304	0.003	U	2.7
EP-118	8/5/02	1.7	2.1	0.011	0.073	0.01	U	0.025	0.038	0.1	U	57	0.013	1.3	1.2	0.041	1	
EP-118	11/4/02	0.43	0.51	0.005	U	0.014	0.01	U	0.01	0.025	U	0.25	0.1	U	31	0.003	U	0.29
EP-119	5/15/01		2		0.005	U	0.01	U	0.025	U	0.27		0.003	U	0.36		0.023	
EP-119	7/27/01	2.2	2.2	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.26	0.046	0.043
EP-119	7/27/01	2.2	2.3	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.26	0.048	0.051
EP-119	11/14/01	2.2	2.1	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.22	0.02	0.02

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-119	2/13/02	2.1	1.9	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.19	0.18	0.015	0.01
EP-119	5/9/02	2.1	2.1	0.005	0.005	0.01	0.01	0.025	0.072	0.1	0.13	0.003	0.004	0.2	0.16	0.02	0.02
EP-119	8/13/02	2.1	2.4	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.19	0.2	0.056	0.061
EP-119	11/12/02	2.1	2.1	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.32	0.003	0.003	0.17	0.16	0.02	0.02
EP-119	11/12/02	2.1	2.1	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.35	0.003	0.003	0.17	0.16	0.02	0.02
EP-12	11/3/97	1.3		0.005		0.01		0.025		0.1		0.003		0.9		0.025	
EP-12	2/3/98	1.2		0.005		0.01		0.025		0.15		0.003		1.2		0.02	
EP-12	5/20/98	1		0.005		0.01		0.031		0.1		0.004		0.57		0.031	
EP-12	8/27/98	1.5		0.019		0.01		0.025		0.88		0.003		0.47		0.02	
EP-12	11/16/98	1.6		0.005		0.01		0.025		0.75		0.003		0.29		0.021	
EP-12	2/25/99	1.8		0.005		0.01		0.025		4.7		0.003		0.53		0.02	
EP-12	5/14/99	2.4		0.005		0.01		0.025		0.74		0.003		0.26		0.021	
EP-12	5/14/99	2.7		0.005		0.01		0.025		0.76		0.003		0.12		0.025	
EP-12	8/11/99	1.7	2	0.005	0.005	0.01	0.01	0.025	0.025	0.75	1.4	0.003	0.004	0.2	0.48	0.024	0.02
EP-12	10/29/99	3.3		0.005			0.015		0.031		0.44		0.021		0.2		0.02
EP-12	2/8/00	2.3		0.005			0.01		0.025		1.6		0.009		0.26		0.02
EP-12	2/8/00	2.6		0.005			0.011		0.025		1.5		0.011		0.28		0.021
EP-12	5/9/00	2		0.005			0.017		0.038		2.8		0.024		0.61		0.032
EP-12	8/16/00	1.8		0.005			0.028		0.044		2.7		0.028		0.71		0.038
EP-12	11/14/00	2.1		0.005			0.011		0.045		3.6		0.028		0.43		0.038
EP-12	2/26/01	0.92		0.005			0.01		0.025		0.92		0.015		0.1		0.032
EP-12	5/17/01	0.83		0.005			0.01		0.025		1.2		0.005		0.069		0.02
EP-12	7/30/01	0.71	0.96	0.005	0.005	0.01	0.01	0.025	0.025	0.17	2.5	0.003	0.01	0.032	0.697	0.02	0.024
EP-12	11/19/01	1.3	1.4	0.005	0.005	0.01	0.01	0.025	0.025	0.52	2.5	0.003	0.015	0.1	0.12	0.03	0.03
EP-12	2/21/02	1.3	1.2	0.005	0.005	0.01	0.01	0.025	0.025	0.41	2.9	0.003	0.011	0.003	0.14	0.02	0.02
EP-12	5/14/02	0.49	0.89	0.005	0.005	0.01	0.013	0.025	0.025	0.11	1	0.003	0.003	0.052	0.615	0.02	0.02
EP-12	8/21/02	0.63	0.72	0.005	0.005	0.015	0.027	0.025	0.025	0.1	0.28	0.003	0.003	0.071	0.087	0.02	0.027
EP-12	11/25/02	1	1.3	0.005	0.005	0.012	0.01	0.025	0.025	0.18	0.75	0.003	0.003	0.075	0.11	0.02	0.02
EP-120	5/7/01		0.27		0.005		0.01		0.025		0.17		0.001		0.058		0.036
EP-120	8/1/01	0.35	0.35	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.57	0.003	0.003	0.15	0.15	0.02	0.023
EP-120	8/1/01	0.35	0.36	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.55	0.003	0.003	0.15	0.15	0.02	0.02
EP-120	11/12/01	0.38	0.4	0.005	0.005	0.01	0.01	0.025	0.025	0.1	1.4	0.003	0.003	0.11	0.11	0.02	0.027
EP-120	2/19/02	0.29	0.29	0.005	0.005	0.01	0.01	0.025	0.01	0.1	0.33	0.003	0.005	0.27	0.25	0.022	0.039
EP-120	5/7/02	0.29	0.28	0.005	0.005	0.01	0.01	0.025	0.035	0.1	0.61	0.003	0.009	0.088	0.074	0.02	0.043
EP-120	8/20/02	0.25	0.26	0.005	0.005	0.01	0.01	0.035	0.012	0.1	0.29	0.003	0.004	0.29	0.26	0.026	0.051
EP-120	11/13/02																
EP-121	5/7/01		0.59		0.005		0.01		0.025		0.8		0.01		0.031		0.046
EP-121	8/1/01	0.57	0.6	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.97	0.003	0.003	0.032	0.031	0.02	0.02
EP-121	11/19/01	0.64	0.62	0.005	0.005	0.01	0.01	0.025	0.025	0.1	1.9	0.003	0.005	0.027	0.026	0.02	0.03
EP-121	2/20/02	0.59	0.52	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.42	0.003	0.003	0.002	0.021	0.024	0.02
EP-121	5/14/02	0.55	0.63	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.46	0.003	0.003	0.026	0.023	0.02	0.02
EP-121	8/20/02	0.5	0.48	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.49	0.003	0.003	0.026	0.025	0.02	0.02
EP-121	11/13/02	0.5	0.49	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.58	0.003	0.003	0.025	0.024	0.02	0.023
EP-122	5/14/01		2.1		0.005		0.01		0.025		1.1		0.003		0.19		0.02
EP-122	7/27/01	2.2	2.1	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.18	0.19	0.029	0.029
EP-122	11/13/01	2.4	2.3	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.38	0.003	0.003	0.16	0.17	0.02	0.02
EP-122	2/19/02	2.1	2.2	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.15	0.15	0.02	0.023
EP-122	5/11/02	2.3	2.5	0.008	0.007	0.01	0.01	0.025	0.025	0.1	0.13	0.003	0.003	0.16	0.15	0.025	0.031
EP-122	8/15/02	2.3	2.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.15	0.16	0.02	0.02
EP-122	11/7/02	2.2	2.2	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.24	0.24	0.02	0.02

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-123	5/6/01		1.5		0.005		0.01		0.025		1.4		0.005		0.082		0.014
EP-123	7/25/01	1.7	1.7	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.72	0.005	0.001	0.073	0.074	0.02	0.02
EP-123	11/12/01	1.5	1.7	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.063	0.077	0.02	0.02
EP-123	2/15/02	1.6	1.6	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.07	0.069	0.02	0.02
EP-123	5/7/02	1.6	1.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.15	0.003	0.003	0.07	0.038	0.02	0.02
EP-123	8/14/02	3	3	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.074	0.074	0.02	0.02
EP-123	11/13/02	1.9	1.9	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.065	0.064	0.02	0.02
EP-124	5/16/01		7.1		0.024		0.018		0.087		22		0.003		0.065		0.16
EP-124	7/27/01	10	9.8	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.79	0.008	0.018	0.005	0.005	0.03	0.044
EP-124	11/19/01																
EP-124	2/21/02	11	12	0.005	0.016	0.01	0.032	0.025	0.1	0.1	15	0.005	0.15	0.011	0.018	0.037	1.7
EP-124	5/11/02	11	11	0.005	0.007	0.01	0.01	0.025	0.066	0.1	5.4	0.005	0.067	0.005	0.005	0.04	0.12
EP-124	8/22/02	10	9.9	0.005	0.005	0.01	0.01	0.025	0.045	0.19	4	0.003	0.009	0.009	0.019	0.028	0.089
EP-124	11/25/02	7.8	7.8	0.005	0.01	0.01	0.01	0.025	0.064	0.79	7.8	0.003	0.068	0.009	0.01	0.033	0.1
EP-125	5/7/01		0.013		0.003		0.01		0.025		12		0.003		0.04		0.22
EP-125	7/19/01	0.026	0.04	0.005	0.005	0.01	0.087	0.025	0.092	0.1	0.1	0.003	0.11	0.21	0.2	0.4	1.5
EP-125	11/1/01	0.042	0.056	0.005	0.009	0.01	0.03	0.025	0.072	0.22	55	0.003	0.18	0.18	0.18	0.5	2.1
EP-125	2/11/02	0.038	0.041	0.005	0.005	0.01	0.018	0.025	0.029	0.1	20	0.003	0.035	0.19	0.22	0.7	2.6
EP-125	5/7/02	0.031	0.035	0.005	0.005	0.01	0.014	0.028	0.048	0.1	15	0.003	0.033	0.22	0.19	0.3	3.1
EP-125	8/9/02	0.016	0.017	0.005	0.005	0.01	0.01	0.025	0.042	0.1	3.1	0.003	0.014	0.27	0.31	0.5	2.5
EP-125	11/14/02																
EP-126	5/8/01		0.021		0.035		0.01		0.025		1.8		0.009		0.03		0.083
EP-126	7/19/01	0.039	0.042	0.006	0.006	0.057	0.051	0.025	0.025	0.1	1.1	0.003	0.004	0.2	0.3	0.064	0.1
EP-126	11/1/01	0.045	0.034	0.006	0.005	0.079	0.075	0.025	0.025	0.1	0.32	0.003	0.006	0.9	0.99	0.051	0.056
EP-126	2/12/02	0.058	0.068	0.005	0.005	0.039	0.051	0.025	0.025	0.1	0.21	0.003	0.003	0.98	0.98	0.047	0.055
EP-126	5/7/02	0.051	0.044	0.01	0.009	0.14	0.14	0.025	0.025	0.1	0.29	0.003	0.003	0.89	0.89	0.02	0.035
EP-126	8/9/02	0.02	0.018	0.007	0.007	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.004	0.65	0.65	0.041	0.049
EP-126	11/14/02																
EP-127	5/8/01		2.5		0.005		0.01		0.025		1.3		0.003		0.038		0.032
EP-127	7/1/01	2.3	2.3	0.005	0.005	0.01	0.01	0.025	0.025	1.1	1.5	0.003	0.003	0.024	0.02	0.021	0.026
EP-127	11/13/01	1.9	2.1	0.005	0.005	0.01	0.01	0.025	0.025	0.64	0.78	0.003	0.005	0.033	0.035	0.02	0.02
EP-127	2/20/02	2	2	0.005	0.005	0.01	0.01	0.025	0.025	0.49	0.66	0.003	0.003	0.003	0.012	0.021	0.02
EP-127	5/11/02	2.1	2.3	0.005	0.005	0.01	0.01	0.025	0.025	0.6	0.78	0.003	0.003	0.03	0.036	0.045	0.044
EP-127	8/15/02	2.7	3	0.005	0.005	0.01	0.01	0.025	0.025	0.85	0.97	0.003	0.003	0.029	0.039	0.02	0.02
EP-127	11/7/02	2.5	2.5	0.005	0.005	0.01	0.01	0.025	0.025	0.45	0.63	0.003	0.003	0.016	0.018	0.033	0.03
EP-128	5/8/01		0.61		0.005		0.01		0.025		1		0.003		0.005		0.033
EP-128	7/1/01	0.74	0.68	0.005	0.005	0.01	0.01	0.025	0.025	0.53	0.68	0.003	0.003	0.01	0.007	0.02	0.02
EP-128	11/13/01	0.61	0.71	0.005	0.005	0.01	0.01	0.025	0.025	0.47	0.63	0.003	0.003	0.018	0.019	0.02	0.02
EP-128	2/20/02	0.61	0.55	0.006	0.005	0.01	0.01	0.025	0.025	0.45	0.65	0.003	0.003	0.003	0.007	0.02	0.02
EP-128	2/20/02	0.6	0.56	0.006	0.005	0.01	0.01	0.025	0.025	0.4	0.68	0.003	0.003	0.003	0.007	0.02	0.02
EP-128	5/11/02	0.68	0.77	0.005	0.005	0.01	0.01	0.025	0.025	0.75	1.1	0.003	0.003	0.02	0.028	0.031	0.028
EP-128	8/16/02	0.71	0.75	0.005	0.005	0.01	0.01	0.025	0.025	0.56	0.63	0.003	0.003	0.018	0.019	0.045	0.02
EP-128	11/7/02	0.66	0.7	0.005	0.005	0.01	0.01	0.025	0.025	0.45	0.7	0.003	0.003	0.01	0.014	0.03	0.024
EP-128	11/7/02	0.66	0.69	0.005	0.005	0.01	0.01	0.025	0.025	0.39	0.74	0.003	0.003	0.011	0.012	0.028	0.027
EP-129	5/11/01		0.011		0.005		0.01		0.025		8.6		0.007		0.028		0.063
EP-129	7/24/01	0.007	0.008	0.005	0.005	0.01	0.01	0.025	0.025	0.1	2.0	0.003	0.003	0.038	0.036	0.02	0.028
EP-129	11/2/01	0.011	0.012	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.95	0.003	0.003	0.036	0.037	0.022	0.023
EP-129	2/14/02	0.011	0.011	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.59	0.003	0.003	0.032	0.031	0.02	0.023
EP-129	5/8/02	0.009	0.011	0.005	0.005	0.01	0.01	0.025	0.025	0.1	2	0.003	0.004	0.033	0.033	0.02	0.022
EP-129	8/19/02	0.007	0.008	0.005	0.005	0.01	0.01	0.025	0.025	0.1	2.3	0.003	0.003	0.033	0.034	0.02	0.02

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-129	11/11/02																
EP-13	8/7/97	49		0.82		0.01	U	0.025	U	0.1	U	0.008		7		0.052	12
EP-13	11/6/97	46		0.8		0.01	U	0.025	U	0.15		0.003	U	6.7		0.033	
EP-13	2/17/98	48		0.68		0.01	U	0.027		0.1	0.004	0.003	U	6.1		0.025	11
EP-13	5/7/98	36		0.71		0.01	U	0.025		0.1	U	0.003	U	5.7		0.039	
EP-13	8/6/98	36		0.7		0.01	U	0.025	U	0.1	U	0.003	U	5.4		0.1	
EP-13	11/4/98	39	H	0.77		0.01	U	0.025	U	0.1	U	0.003	U	5.7		0.072	
EP-13	2/8/99	36		0.74		0.01	U	0.025	U	0.1	U	0.001	U	5.1		0.1	
EP-13	5/6/99	38		0.65		0.01	U	0.025	U	0.1	U	0.007		5.1		0.077	
EP-13	8/3/99	39		0.66		0.01	U	0.01	U	0.048		0.003	U	0.009		5.7	0.008
EP-13	10/28/99	31		0.38		0.01	U	0.025	U	0.1	U	0.01		4.4	12	0.03	
EP-13	1/25/00	34		0.53		0.01	U	0.025	U	0.47	14	0.025	U	4.5		0.02	
EP-13	4/26/00	32		0.57		0.01	U	0.025	U	0.25		0.008		5.3		0.038	
EP-13	8/4/00	17		0.36		0.01	U	0.03		0.65		0.017		5.1		0.034	
EP-13	11/2/00	29		0.56		0.01	U	0.025	U	0.25	11	0.009		5.3		0.05	12
EP-13	2/9/01	1.6		0.005	U	0.01	U	0.025	U	0.1		0.004		0.32	14	0.039	
EP-13	5/8/01	25		0.54		0.01	U	0.025	U	0.27		0.006		4.5	14	0.078	
EP-13	7/18/01	30		0.47	0.52	0.01	U	0.01	U	0.028		0.026	0.1	0.22		0.003	
EP-13	10/5/01	32		0.58	0.59	0.01	U	0.01	U	0.025	U	0.025	U	0.1	0.33	0.003	U
EP-13	2/7/02	26		0.48	0.47	0.01	U	0.01	U	0.025	U	0.1	U	0.26		0.003	U
EP-13	5/2/02	25		0.51	0.41	0.01	U	0.01	U	0.025	U	0.2	0.1	0.008		0.009	
EP-13	8/7/02	30		0.49	0.56	0.01	U	0.01	U	0.025	U	0.1	U	0.14		0.003	U
EP-13	11/5/02	23		0.48	0.52	0.01	U	0.01	U	0.025	U	0.1	U	0.12		0.003	U
EP-130	6/3/01	0.44	0.56	0.005	U	0.005	U	0.015	U	0.01	U	0.025	U	0.48	2.6	0.003	U
EP-130	7/26/01	0.13	0.16	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.11	9.4	0.003	U
EP-130	7/26/01	0.13	0.16	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	9.9	0.003	U
EP-130	11/12/01	0.11	0.13	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	5.4	0.003	U
EP-130	2/11/02	0.29	0.29	0.006	0.005	0.01	U	0.01	U	0.025	U	0.1	U	1.3		0.003	U
EP-130	2/11/02	0.31	0.3	0.005	0.005	0.01	U	0.01	U	0.025	U	0.1	U	1.4		0.003	U
EP-130	5/2/02	0.35	0.42	0.013	0.012	0.01	U	0.01	U	0.025	U	0.1	U	1.2		0.003	U
EP-130	8/8/02	0.21	0.25	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	4.4	0.003	U
EP-130	11/11/02																
EP-131	6/8/01	0.91	0.9	0.005	U	0.005	U	0.012	U	0.011	U	0.025	U	0.57	0.79	0.003	U
EP-131	7/26/01	1.2	1.3	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	3	0.003	U
EP-131	11/12/01	1.2	1.2	0.005	U	0.012	U	0.01	U	0.014	U	0.025	U	0.031		0.003	U
EP-131	11/12/01	1.2	1.2	0.005	U	0.012	U	0.01	U	0.014	U	0.025	U	0.025	U	0.1	11
EP-131	2/11/02	1.2	1.1	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	2.4	0.003	U
EP-131	5/2/02	1.2	1.2	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	0.89	0.003	U
EP-131	8/8/02	1.2	1.4	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	0.65	0.003	U
EP-131	11/11/02																
EP-132	6/8/01	4.5	1.5	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	0.91	0.003	U
EP-132	6/8/01	1.5	1.5	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	0.9	0.003	U
EP-132	7/27/01	1.9	2	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	0.75	0.003	U
EP-132	11/13/01	1.7	1.8	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	4.1	0.003	U
EP-132	2/19/02	1.8	1.8	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	1.1	0.003	U
EP-132	5/9/02	2	2	0.005	U	0.005	U	0.01	U	0.015	U	0.025	U	0.1	1	0.003	U
EP-132	8/13/02	2.1	2.3	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	0.14	0.003	U
EP-132	11/12/02	2.1	2	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	0.68	0.003	U
EP-133	12/18/02	2.2	2.1	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	2.4	0.003	U
EP-134	12/18/02	0.8	0.89	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	3.2	0.003	U

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-135	12/17/02	2.7	3	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.025	U	0.21	0.064
EP-136	12/18/02	0.1	0.09	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.025	U	0.017	0.042
EP-137	12/18/02	0.77	0.77	0.016	U	0.054	U	0.01	U	0.01	U	0.025	U	0.025	U	0.46	0.18
EP-14	11/5/97	1.1		0.005	U			0.01	U			0.025	U	0.35		0.02	
EP-14	2/17/98	1.3		0.005	U			0.01	U			0.025	U	0.3		0.02	0.04
EP-14	5/7/98	1.4		0.005	U			0.01	U			0.025	U	0.21		0.046	
EP-14	8/6/98	2.5		0.005	U			0.01	U			0.025	U	0.084		0.032	
EP-14	11/4/98	2.2	H	0.005	U			0.01	U			0.025	U	0.18		0.022	
EP-14	2/8/99	1.7		0.005	U			0.01	U			0.025	U	0.3		0.031	
EP-14	5/6/99	1.7		0.005	U			0.01	U			0.025	U	0.25		0.02	
EP-14	8/3/99	2.1	2.1	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.025	0.19	0.035	0.055
EP-14	10/28/99		1.4		0.005	U		0.01	U			0.025	U	0.003	0.2		
EP-14	1/25/00		1.5		0.005	U		0.01	U			0.025	U	0.01	0.21		
EP-14	4/26/00		1.3		0.005	U		0.01	U			0.025	U	0.005	0.19		0.028
EP-14	8/4/00		1.3		0.005	U		0.01	U			0.025	U	0.004	0.19		0.02
EP-14	8/4/00		1.3		0.005	U		0.01	U			0.025	U	0.004	0.19		0.03
EP-14	11/2/00		1.4		0.005	U		0.01	U			0.025	U	0.004	0.2		0.035
EP-14	2/9/01		2.3		0.52			0.01	U			0.025	U	0.013	4.1		0.091
EP-14	5/8/01		1.4		0.005	U		0.01	U			0.025	U	0.004	0.32		0.047
EP-14	7/18/01	1.5	1.5	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.004	0.33	0.02	0.02
EP-14	10/31/01	1.6	1.6	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.005	0.32	0.02	0.02
EP-14	2/7/02	1.7	1.6	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	0.31	0.02	0.02
EP-14	5/2/02	1.4	1.4	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.004	0.34	0.02	0.03
EP-14	5/2/02	1.4	1.4	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.004	0.34	0.02	0.031
EP-14	8/7/02	1.6	1.7	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	0.35	0.02	0.045
EP-14	11/5/02	1.6	1.6	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	0.38	0.02	
EP-15	8/7/97	0.076		0.005	U			0.01	U			0.025	U	0.003	0.7		
EP-15	11/6/97	0.013		0.005	U			0.01	U			0.025	U	0.003	0.16		
EP-15	2/17/98	0.031		0.016		0.01	U		0.025	U		0.025	U	0.003	0.16		0.02
EP-15	5/7/98	0.007		0.005	U			0.01	U			0.025	U	0.003	0.2		0.021
EP-15	8/10/98	0.009		0.005	U			0.01	U			0.025	U	0.003	0.17		0.031
EP-15	11/5/98	0.007	H	0.005	U			0.01	U			0.025	U	0.003	0.14		0.048
EP-15	2/8/99	0.025		0.015		0.01	U		0.025	U		0.025	U	0.003	0.12		0.045
EP-15	2/8/99	0.028		0.014		0.01	U		0.025	U		0.025	U	0.003	0.12		0.06
EP-15	5/5/99	0.008		0.005		0.01	U		0.025	U		0.025	U	0.003	0.15		0.060
EP-15	8/3/99	0.012	0.014	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	0.17	0.15	0.02
EP-15	8/3/99	0.012	0.014	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	0.17	0.15	0.022
EP-15	10/28/99		0.021		0.012		0.01	U				0.025	U	0.004	0.12	0.02	
EP-15	1/24/00		0.009		0.005	U	0.01	U				0.025	U	0.003	0.14	0.02	
EP-15	4/26/00		0.007		0.005	U	0.01	U				0.025	U	0.004	0.13	0.029	
EP-15	8/3/00		0.007		0.005	U	0.01	U				0.025	U	0.005	0.14	0.02	
EP-15	11/2/00		0.008		0.005	U	0.01	U				0.025	U	0.003	0.21	0.041	
EP-15	11/2/00		0.009		0.005	U	0.01	U				0.025	U	0.003	0.22	0.033	
EP-15	2/12/01		0.011		0.005	U	0.01	U				0.025	U	0.003	0.27	0.06	
EP-13	5/8/01		0.013		0.008		0.01	U				0.025	U	0.004	0.23		0.055
EP-15	7/19/01	0.015	0.013	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	0.23	0.022	0.026
EP-15	11/1/01	0.026	0.029	0.005	0.006	0.01	U	0.01	U	0.025	U	0.003	U	0.005	0.16	0.02	0.028
EP-15	11/1/01	0.031	0.034	0.006	0.006	0.01	U	0.01	U	0.025	U	0.003	U	0.003	0.18	0.02	0.02
EP-15	2/8/02	0.017	0.021	0.015	0.015	0.01	U	0.01	U	0.025	U	0.003	U	0.003	0.15	0.02	0.021
EP-15	5/1/02	0.014	0.014	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.004	0.22	0.02	0.035

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-15	8/7/02	0.011	0.01	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.31	0.32	0.02	0.029
EP-15	11/11/02																
EP-20	8/7/97	1.2		0.036		0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.18		0.187	0.2
EP-20	11/3/97	1.2		0.04		0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.35		0.059	
EP-20	2/3/98	0.66		0.048		0.01	0.01	0.036	0.036	0.11	0.11	0.003	0.003	0.37		0.003	0.04
EP-20	5/6/98	0.85		0.042		0.01	0.01	0.03	0.03	0.1	0.1	0.003	0.003	0.34		0.048	
EP-20	8/6/98	0.87		0.038		0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.35		0.040	
EP-20	11/4/98	0.92	0.92	0.034		0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.37		0.051	
EP-20	2/4/99	0.79	0.79	0.039		0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.33		0.039	0.01
EP-20	5/4/99	0.92		0.048		0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.37		0.025	
EP-20	8/2/99	1	1.1	0.03	0.03	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.37	0.35	0.044	0.046
EP-20	10/26/99		0.75		0.03		0.01	0.025	0.025	1.6	1.6	0.003	0.003	0.27	0.27		0.04
EP-20	1/31/00		0.97		0.076		0.01	0.025	0.025	1.7	1.7	0.004	0.004	0.28	0.28		0.06
EP-20	1/31/00		0.9		0.066		0.01	0.025	0.025	1.9	1.9	0.007	0.007	0.29	0.29		0.055
EP-20	5/4/00		0.75		0.068		0.01	0.025	0.025	0.46	0.46	0.003	0.003	0.31	0.31		0.042
EP-20	5/4/00		0.78		0.063		0.01	0.025	0.025	0.96	0.96	0.003	0.003	0.31	0.31		0.037
EP-20	8/2/00		0.75		0.047		0.01	0.025	0.025	0.73	0.73	0.005	0.005	0.3	0.3		0.036
EP-20	10/30/00		0.85		0.07		0.01	0.025	0.025	0.5	0.5	0.003	0.003	0.34	0.34		0.093
EP-20	2/22/01		0.98		0.093		0.01	0.025	0.025	3.4	3.4	0.006	0.006	0.32	0.32		0.065
EP-20	5/16/01		0.93		0.087		0.01	0.025	0.025	2.8	2.8	0.006	0.006	0.34	0.34		0.04
EP-20	5/16/01		0.92		0.091		0.01	0.025	0.025	2.1	2.1	0.004	0.004	0.34	0.34		0.039
EP-20	7/17/01	0.97	0.96	0.063	0.073	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.39	0.35	0.032	0.035
EP-20	7/17/01	0.96	0.96	0.063	0.073	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.39	0.35	0.031	0.035
EP-20	10/29/01	1	1.1	0.082	0.089	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.38	0.37	0.037	0.04
EP-20	2/5/02	1.4	1.4	0.14	0.14	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.31	0.31	0.026	0.032
EP-20	2/5/02	1.3	1.3	0.13	0.13	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.32	0.32	0.035	0.036
EP-20	4/29/02	1.4	1.4	0.16	0.18	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.25	0.25	0.024	0.061
EP-20	4/29/02	1.4	1.4	0.15	0.17	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.35	0.34	0.022	0.06
EP-20	4/5/02	1.3	1.3	0.084	0.081	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.4	0.38	0.044	0.086
EP-20	11/4/02	1.2	1.2	0.11	0.11	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.31	0.3	0.1	0.13
EP-20	11/4/02	1.2	1.2	0.1	0.11	0.01	0.01	0.025	0.027	0.1	0.1	0.003	0.003	0.31	0.3	0.1	0.13
EP-21	11/18/97	0.667		0.005	0.005	0.01	0.01	0.025	0.025	0.39	0.39	0.003	0.003	0.075	0.075	0.031	
EP-21	2/18/98	0.062		0.005	0.005	0.01	0.01	0.025	0.025	0.17	0.17	0.003	0.003	0.095	0.095	0.038	
EP-21	5/21/98	0.052		0.005	0.005	0.01	0.01	0.025	0.025	0.34	0.34	0.004	0.004	0.018	0.018	0.025	
EP-21	8/24/98	0.032		0.005	0.005	0.01	0.01	0.025	0.025	0.32	0.32	0.003	0.003	0.019	0.019	0.02	
EP-21	11/16/98	0.034		0.005	0.005	0.01	0.01	0.025	0.025	0.2	0.2	0.003	0.003	0.016	0.016	0.026	
EP-21	2/24/99	0.033		0.005	0.005	0.01	0.01	0.025	0.025	0.21	0.21	0.003	0.003	0.015	0.015	0.02	
EP-21	8/10/99	0.022	0.042	0.005	0.005	0.01	0.01	0.025	0.03	0.83	1.3	0.003	0.016	0.005	0.017	0.031	0.079
EP-21	11/3/99		0.15		0.012		0.01		0.13		8.7		0.078		0.015		
EP-21	2/1/00		0.064		0.005		0.01		0.025		1.8		0.067		0.021		0.15
EP-21	5/8/00		0.062		0.005		0.01		0.024		1.7		0.013		0.025		0.23
EP-21	8/16/00		0.068		0.005		0.01		0.025		1.2		0.064		0.01		0.35
EP-21	8/16/00		0.054		0.005		0.01		0.025		1		0.005		0.01		0.2
EP-21	11/14/00		0.036		0.005		0.01		0.026		0.83		0.005		0.013		0.19
EP-21	11/14/00		0.038		0.005		0.01		0.025		1		0.004		0.012		0.24
EP-21	2/26/01		0.067		0.011		0.01		0.076		4.9		0.029		0.013		0.91
EP-21	2/26/01		0.061		0.009		0.01		0.067		4.5		0.023		0.013		0.79
EP-21	5/16/01		0.057		0.005		0.01		0.025		1.9		0.006		0.01		0.32
EP-21	7/30/01	0.01	0.039	0.005	0.005	0.01	0.01	0.025	0.025	0.2	2.4	0.003	0.006	0.005	0.01	0.02	0.38
EP-21	11/15/01	0.012	0.1	0.005	0.021	0.01	0.01	0.025	0.15	0.79	11	0.003	0.015	0.005	0.006	0.02	1.8

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-21	2/21/02	0.013	0.025	0.005	0.005	0.01	0.01	0.025	0.025	0.23	0.3	0.003	0.005	0.037	0.041	0.021	0.3
EP-21	3/14/02	0.009	0.016	0.005	0.013	0.01	0.023	0.023	0.098	0.3	0.71	0.003	0.003	0.011	0.011	0.02	0.10
EP-21	8/21/02	0.009	0.057	0.005	0.005	0.01	0.01	0.025	0.037	0.29	0.6	0.003	0.005	0.008	0.018	0.02	0.31
EP-21	11/25/02	0.007	0.24	0.005	0.061	0.01	0.014	0.025	0.13	0.1	0.26	0.003	0.12	0.006	0.017	0.02	0.31
EP-22	8/15/97	0.035		0.006		0.01		0.031		0.1		0.016		0.32		0.04	
EP-22	11/18/97	0.044		0.005		0.01		0.025		0.1		0.006		0.11		0.04	
EP-22	2/18/98	0.035		0.005		0.01		0.035		0.1		0.018		0.59		0.1	
EP-22	6/10/98	0.096		0.044		0.019		0.034		0.11		0.034		0.34		0.3	
EP-22	8/24/98	0.011		0.005		0.01		0.025		0.14		0.003		0.073		0.039	
EP-22	11/16/98	0.008		0.005		0.01		0.025		0.1		0.003		0.054		0.057	
EP-22	1/26/00		1.2		0.011		0.012		0.017		1.2		0.1		0.11		0.26
EP-22	4/28/00		1.2		0.009		0.01		0.046		1.7		0.075		0.21		0.36
EP-22	8/7/00		1.5		0.013		0.01		0.036		0.87		0.006		0.33		0.41
EP-22	11/5/00		2.6		0.009		0.01		0.026		0.19		0.003		1.1		0.23
EP-22	2/14/01		3.4		0.009		0.01		0.029		0.14		0.004		1.6		0.52
EP-22	5/9/01		3		0.007		0.01		0.039		0.62		0.015		1.8		0.47
EP-22	7/19/01	3.7	3.9	0.006	0.007	0.01	0.01	0.051	0.074	0.1	1.1	0.003	0.045	0.6	1.8	0.46	0.5
EP-22	11/5/01	3.8	3.8	0.006	0.005	0.01	0.01	0.071	0.11	0.1	1.3	0.003	0.032	1.3	1.2	0.6	0.59
EP-22	2/12/02	3.9	3.8	0.005	0.005	0.01	0.01	0.063	0.092	0.1	0.83	0.003	0.02	1	0.9	0.55	0.5
EP-22	5/7/02	4.4	4	0.005	0.005	0.01	0.01	0.076	0.083	0.1	0.46	0.003	0.013	0.96	0.87	0.57	0.6
EP-22	8/5/02	4.6	5.2	0.01	0.012	0.01	0.01	0.089	0.13	0.1	0.89	0.003	0.031	0.96	1.1	0.7	0.73
EP-22	11/6/02	5.7	5.8	0.012	0.013	0.01	0.01	0.12	0.16	0.1	0.91	0.003	0.024	0.94	0.91	0.66	0.67
EP-23	8/11/97	2.5		0.005		0.01		0.025		0.65		0.003		0.027		0.057	
EP-23	11/4/97		0.605		0.01			0.025		0.46		0.003		0.023		0.058	
EP-23	2/4/98	1.3	0.005		0.01			0.025		0.25		0.003		0.02		0.019	
EP-23	5/11/98	4.2	0.003		0.01			0.025		0.63		0.003		0.011		0.045	
EP-23	8/12/98	1.6	0.005		0.01			0.025		0.49		0.003		0.009		0.023	
EP-23	11/5/98	2.5	0.005		0.01			0.025		0.34		0.003		0.005		0.02	
EP-23	2/11/99	0.81	0.005		0.01			0.025		0.33		0.003		0.011		0.02	
EP-23	5/7/99	1.9	0.005		0.01			0.025		0.26		0.003		0.005		0.02	
EP-23	5/14/99	4.9	0.005		0.01			0.025		0.34		0.003		0.008		0.02	
EP-23	8/4/99	8.3	9.4	0.005	0.005	0.01	0.01	0.025	0.039	0.49	0.78	0.003	0.02	0.005	0.009	0.02	0.099
EP-23	10/30/99		11		0.008		0.01		0.24		0.93		0.088		0.013		0.14
EP-23	2/1/00		3.1		0.006		0.01		0.15		1.1		0.08		0.012		0.1
EP-23	5/3/00		2.6		0.005		0.01		0.14		0.8		0.06		0.015		0.075
EP-23	8/16/00		4.7		0.007		0.01		0.26		1.1		0.077		0.009		0.1
EP-23	11/13/00		7		0.005		0.01		0.13		1.1		0.043		0.011		0.074
EP-23	2/21/01		8.6		0.016		0.01		0.45		1.4		0.16		0.013		0.33
EP-23	5/10/01		5.2		0.012		0.01		0.18		6.5		0.12		0.005		0.11
EP-23	7/20/01	0.77	0.96	0.005	0.005	0.01	0.01	0.025	0.04	0.37	1.2	0.003	0.02	0.013	0.018	0.02	0.035
EP-23	11/14/01	1.2	1.1	0.005	0.005	0.01	0.01	0.025	0.038	0.48	1.1	0.003	0.028	0.006	0.014	0.02	0.028
EP-23	2/21/02	0.89	0.65	0.005	0.005	0.01	0.01	0.025	0.036	0.47	1.3	0.003	0.013	0.017	0.019	0.02	0.034
EP-23	5/10/02	1.2	1.4	0.005	0.005	0.01	0.01	0.025	0.088	0.54	1.5	0.003	0.013	0.022	0.022	0.044	0.051
EP-23	8/14/02	1.2	1.3	0.005	0.005	0.01	0.01	0.025	0.025	0.23	1.4	0.003	0.011	0.011	0.01	0.02	0.02
EP-23	11/12/02	0.96	1.2	0.005	0.005	0.01	0.01	0.025	0.025	0.55	1.2	0.003	0.008	0.014	0.015	0.024	0.031
EP-24	8/15/97	0.47		0.005		0.01		0.025		4.4		0.003		0.014		0.035	
EP-24	11/18/97	0.071		0.005		0.01		0.025		0.1		0.003		0.079		0.03	
EP-24	2/18/98	0.031		0.005		0.01		0.025		0.2		0.003		0.005		0.02	
EP-24	5/21/98	0.38		0.005		0.01		0.12		0.81		0.004		0.005		0.33	
EP-24	8/24/98	0.05		0.005		0.01		0.025		0.35		0.003		0.01		0.02	

Appendix H

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l		
EP-24	11/16/98	0.062		0.005	U	0.01	U	0.025	U	0.15		0.003	U	0.005	U	0.02	U		
EP-24	2/11/99	0.17		0.005	U	0.01	U	0.025	U	0.1		0.003	U	0.005	U	0.02	U		
EP-24	5/14/99	0.097		0.005	U	0.01	U	0.025	U	0.69		0.003	U	0.03	U	0.02	U		
EP-24	8/10/99	0.006	0.013	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.17	U	0.005	U		
EP-24	11/5/99		0.007		0.005	U	0.01	U	0.022		1.4		0.005	U	0.005	U	0.024	U	
EP-24	2/1/00		0.006	U	0.005	U	0.01	U	0.025	U	0.43	U	0.008	U	0.006	U	0.02	U	
EP-24	5/8/00		0.028	U	0.005	U	0.01	U	0.025	U	0.14	U	0.003	U	0.013	U	0.02	U	
EP-24	8/16/00		0.042	U	0.005	U	0.01	U	0.025	U	0.57		0.003	U	0.003	U	0.02	U	
EP-24	11/14/00		0.01		0.005	U	0.01	U	0.025	U	0.53		0.004	U	0.005	U	0.024	U	
EP-24	2/26/01		0.005	U	0.005	U	0.01	U	0.025	U	0.11		0.01	U	0.005	U	0.02	U	
EP-24	5/16/01		0.035		0.005	U	0.01	U	0.025	U	0.1		0.003	U	0.005	U	0.02	U	
EP-24	7/30/01	0.022	0.042	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U
EP-24	11/15/01	0.033	0.048	0.005	U	0.005	U	0.01	U	0.025	U	0.12	0.3	0.003	U	0.005	U	0.02	U
EP-24	2/21/02	0.008	0.041	0.005	U	0.005	U	0.01	U	0.025	U	0.081	0.1	0.003	U	0.015	U	0.025	U
EP-24	5/10/02	0.4	0.67	0.005	U	0.005	U	0.01	U	0.025	U	0.17	1.7	0.003	U	0.012	U	0.005	U
EP-24	8/14/02	0.51	0.6	0.005	U	0.005	U	0.01	U	0.025	U	0.025	0.5	0.003	U	0.031	U	0.005	U
EP-24	11/12/02	0.13	0.26	0.005	U	0.007	U	0.01	U	0.025	U	0.025	0.36	0.003	U	0.006	U	0.005	U
EP-25	8/15/97	3		0.005	U	0.01	U	0.025	U	2.5		0.003	U	0.17		0.02	U		
EP-25	11/19/97	3.5		0.005	U	0.01	U	0.025	U	1.8		0.011	U	0.079		0.02	U		
EP-25	2/18/98	3.1		0.005	U	0.01	U	0.025	U	4	U	0.003	U	0.044		0.02	U		
EP-25	5/21/98	2.6		0.005	U	0.01	U	0.028	U	5.8		0.004	U	0.083		0.02	U		
EP-25	8/24/98	5.1		0.005	U	0.01	U	0.025	U	9.7		0.003	U	0.051		0.02	U		
EP-25	11/16/98	2.4		0.005	U	0.01	U	0.025	U	1.3		0.003	U	0.053		0.02	U		
EP-25	5/14/99	1		0.005	U	0.01	U	0.025	U	26		0.003	U	0.04	U	0.02	U		
EP-25	8/11/99	0.82	1.1	0.005	U	0.005	U	0.01	U	0.025	U	8	8.2	0.003	U	0.009	U	0.073	0.15
EP-25	11/3/99		7.8		0.005	U	0.01	U	0.06		6.7		0.052	U	0.3		0.038	U	
EP-25	11/3/99		6.7		0.005	U	0.01	U	0.041		5.2		0.074	U	0.15		0.026	U	
EP-25	2/8/00		4		0.006	U	0.01	U	0.14		7.5		0.12	U	0.22		0.1	U	
EP-25	5/8/00		13		0.005	U	0.01	U	0.025	U	2.2		0.025	U	0.44		0.024	U	
EP-25	8/16/00		6.5		0.005	U	0.01	U	0.011		1		0.012	U	0.13	U	0.026	U	
EP-25	11/14/00		12		0.005	U	0.01	U	0.025	U	1		0.011	U	0.18		0.025	U	
EP-25	2/26/01		4.8		0.005	U	0.01	U	0.025	U	1.1		0.009	U	0.088		0.064	U	
EP-25	5/16/01		8		0.005	U	0.01	U	0.025	U	1.1	U	0.011	U	0.1		0.02	U	
EP-25	7/30/01	2.8	7.4	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	1.3	U	0.003	U	0.007	0.11
EP-25	11/15/01	2.4	18	0.005	U	0.005	U	0.01	U	0.025	U	0.069	0.1	U	13	0.003	U	0.047	0.023
EP-25	2/21/02	0.21	38	0.005	U	0.013	U	0.01	U	0.025	U	0.18	0.1	U	9.9	0.003	U	0.1	0.01
EP-25	5/14/02	1.7	11	0.005	U	0.005	U	0.01	U	0.025	U	0.12	5.1	0.003	U	0.005	U	0.05	0.02
EP-25	8/21/02	3	10	0.005	U	0.005	U	0.01	U	0.025	U	0.13	0.21	0.003	U	0.063	U	0.022	0.017
EP-25	11/25/02	6.3	11	0.005	U	0.005	U	0.01	U	0.025	U	0.15	0.74	0.003	U	0.088	U	0.019	0.16
EP-26	8/11/97	0.32		0.62		0.01	U	0.21		0.12		0.036		0.079		9			
EP-26	11/4/97	0.32		1.5		0.01	U	0.16		0.1	U	0.01		0.27		4.2			
EP-26	3/4/98	0.58		0.18		0.01	U	0.042	U	0.1	U	0.01		0.05		0.56			
EP-26	5/7/98	0.45		0.18		0.01	U	0.025	U	0.1	U	0.007		0.059		0.57			
EP-26	8/12/98	0.38		0.28		0.01	U	0.037		0.1	U	0.005		0.065		1.3			
EP-26	11/4/98	0.28	U	0.44		0.01	U	0.026		0.1	U	0.003		0.23		1.5			
EP-26	2/4/99	0.38	U	0.15		0.01	U	0.025	U	0.1	U	0.004		0.057		0.52			
EP-26	5/5/99	0.31		0.73		0.01	U	0.039		0.1	U	0.01		0.21		2.3			
EP-26	8/4/99	0.23	0.28	U	3.5	2.5	0.01	U	0.01	U	0.082	0.28	U	0.1	U	0.015	0.1	0.66	7.1
EP-26	1/26/00		0.085		0.29		0.01	U	0.057		17		0.12		0.74		0.53		
EP-26	4/28/00		0.31		0.29		0.01	U	0.025	U	1.6	U	0.014		1.1		0.87	12	

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-26	8/7/00		0.38		0.35		0.01	0.025	0.025	0.89		0.008			1.1		1.2
EP-26	11/7/00		0.3		0.26		0.01	0.025	0.025	1.2		0.001			0.92		1
EP-26	2/20/01		0.26		0.21		0.01	0.025	0.025	0.57		0.006			1.1		0.74
EP-26	5/10/01		0.26		0.34		0.01	0.025	0.025	0.76		0.006			1.1		0.35
EP-26	5/10/01		0.28		0.35		0.01	0.025	0.025	0.75		0.006			1.1		0.98
EP-26	7/26/01	0.39	0.38	0.43	0.41	0.01	0.01	0.025	0.025	0.5	0.003	0.003	1.3	1.1	1.4	1.6	
EP-26	11/12/01	0.21	0.23	0.23	0.24	0.01	0.01	0.025	0.085	0.1	0.02	0.003	0.008	0.96	1.1	0.6	3.64
EP-26	2/13/02	0.25	0.27	0.21	0.21	0.01	0.01	0.025	0.025	0.1	0.34	0.003	0.003	1.1	0.94	0.6	0.72
EP-26	2/13/02	0.25	0.25	0.22	0.21	0.01	0.01	0.025	0.025	0.1	0.32	0.003	0.003	1.1	0.92	0.6	0.7
EP-26	5/9/02	0.32	0.31	0.3	0.28	0.01	0.01	0.025	0.025	0.1	0.61	0.003	0.003	0.99	0.91	0.98	1.1
EP-26	8/12/02	0.4	0.45	0.41	0.43	0.01	0.01	0.025	0.025	0.1	0.11	0.003	0.003	1.2	1.3	1.5	1.7
EP-26	11/6/02	0.25	0.24	0.23	0.22	0.01	0.01	0.027	0.025	0.1	0.41	0.005	0.005	0.98	0.95	0.8	0.75
EP-29	8/7/97	0.31		0.005		0.01		0.025		0.1		0.003			0.2		0.025
EP-29	11/3/97	0.48		0.005		0.01		0.025		1.8		0.003			0.12		0.03
EP-29	2/3/98	0.29		0.005		0.01		0.025		0.11		0.003			0.19		0.02
EP-29	5/6/98	0.21		0.005		0.01		0.025		0.1		0.003			0.16		0.021
EP-29	8/6/98	0.26		0.005		0.01		0.025		0.1		0.003			0.24		0.028
EP-29	11/4/98	0.31		0.005		0.01		0.025		0.1		0.003			0.22		0.02
EP-29	2/3/99	0.26		0.005		0.01		0.025		0.1		0.003			0.15		0.03
EP-29	5/4/99	0.3		0.005		0.01		0.025		0.1		0.003			0.13		0.02
EP-29	5/4/99	0.31		0.005		0.01		0.025		0.1		0.003			0.12		0.02
EP-29	8/2/99	0.26		0.005	0.005	0.01	0.014	0.025	0.025	0.1	7.2	0.003	0.008	0.12	0.13	0.02	0.029
EP-29	10/26/99		0.27		0.005		0.03	0.027		14	12.14	0.013			0.13		0.03
EP-29	1/31/00		0.33		0.005		0.03	0.035		10		0.01			0.18		0.025
EP-29	5/4/00		0.38		0.005		0.057	0.037		52		0.034			0.21		0.039
EP-29	8/2/00		0.28		0.005		0.01	0.025		13		0.009			0.13		0.042
EP-29	10/30/00		0.28		0.005		0.01	0.025		4.3		0.007			0.15		0.041
EP-29	2/22/01		0.32		0.005		0.089	0.025		25		0.018			0.17		0.05
EP-29	5/16/01		0.27		0.005		0.01	0.025		0.1		0.003			0.16		0.02
EP-29	7/17/01	0.27	0.28	0.005	0.005	0.01	0.015	0.025	0.025	0.1	14	0.003	0.01	0.16	0.14	0.02	0.037
EP-29	10/29/01	0.25	0.31	0.005	0.005	0.01	0.037	0.025	0.025	0.16	17	0.003	0.013	0.16	0.17	0.02	0.045
EP-29	2/5/02	0.27	0.37	0.005	0.005	0.01	0.035	0.025	0.047	0.1	39	0.003	0.04	0.15	0.23	0.02	0.16
EP-29	4/29/02	0.25	0.43	0.005	0.005	0.01	0.059	0.025	0.042	0.1	62	0.003	0.039	0.18	0.2	0.02	0.11
EP-29	8/5/02	0.25	0.27	0.005	0.005	0.01	0.013	0.025	0.025	0.1	7.3	0.003	0.014	0.16	0.15	0.02	0.029
EP-29	11/4/02	0.24	0.26	0.005	0.005	0.01	0.023	0.025	0.025	0.1	2	0.003	0.014	0.15	0.15	0.027	0.086
EP-35	8/7/97	0.4		0.005		0.01		0.025		0.1		0.003			0.14		0.076
EP-35	11/3/97	0.4		0.005		0.01		0.025		0.1		0.003			0.17		0.022
EP-35	2/3/98	0.37		0.005		0.01		0.025		0.1		0.003			0.1		0.021
EP-35	5/6/98	0.62		0.005		0.01		0.025		0.1		0.003			0.23		0.049
EP-35	8/6/98	0.26		0.005		0.01		0.025		0.1		0.003			0.25		0.029
EP-35	11/4/98	0.59		0.005		0.01		0.025		0.1		0.033			0.15		0.024
EP-35	2/4/99	0.51		0.005		0.01		0.025		0.1		0.003			0.29		0.02
EP-35	5/4/99	0.58		0.005		0.01		0.025		0.1		0.003			0.2		0.02
EP-35	8/2/99	0.82	0.78	0.005	0.005	0.01	0.015	0.025	0.025	0.1	1.6	0.003	0.009	0.17	0.17	0.02	0.027
EP-35	10/26/99		0.67		0.005		0.011	0.026		2.8	13.14	0.012			0.3		0.02
EP-35	1/31/00		0.92		0.005		0.028	0.046		9.5		0.033			0.46		0.044
EP-35	5/4/00		0.51		0.005		0.016	0.025		1.5		0.008			0.5		0.02
EP-35	8/2/00		0.62		0.005		0.036	0.025		1.9		0.011			1.1		0.039
EP-35	10/30/00		0.73		0.005		0.012	0.025		1.7		0.007			1.2		0.047
EP-35	2/22/01		0.65		0.005		0.034	0.033		5.8		0.028			0.86		0.053

Appendix II

Cummulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-35	5/16/01		0.67		0.005 U		0.044		0.025 U		1.9		0.003		0.008		0.022
EP-35	7/17/01	0.59	0.68	0.005 U	0.005 U	0.01 U	0.074	0.025 U	0.025 U	0.1 U	1.2	0.003 U	0.013	0.98	0.92	0.02 U	0.031
EP-35	10/29/01	0.76	0.8	0.005 U	0.005 U	0.01 U	0.044	0.025 U	0.025 U	0.1 U	4.9	0.003 U	0.017	0.73	0.73	0.02 U	0.046
EP-35	2/5/02	0.45	0.69	0.005 U	0.005 U	0.01 U	0.036	0.025 U	0.025 U	0.1 U	9.8	0.003 U	0.017	0.62	0.63	0.03 U	0.071
EP-35	4/29/02	0.63	0.76	0.005 U	0.005 U	0.01 U	0.15	0.025 U	0.028	0.1 U	3.7	0.003 U	0.013	0.64	0.56	0.02 U	0.037
EP-35	8/5/02	0.55	0.58	0.005 U	0.005 U	0.01 U	0.042	0.025 U	0.025 U	0.1 U	0.69	0.003 U	0.009	0.71	0.68	0.02 U	0.032
EP-35	11/4/02	0.4	0.69	0.005 U	0.005 U	0.01 U	0.042	0.025 U	0.025 U	0.1 U	1.9	0.003 U	0.011	0.61	0.57	0.02 U	0.049
EP-4	8/6/97	0.16		0.005 U		0.01 U		0.025 U				0.003 U		0.005 U		0.02 U	
EP-4	11/4/97	0.14		0.005 U		0.01 U		0.025 U		0.85		0.003 U		0.005 U		0.02 U	
EP-4	2/4/98	0.068		0.005 U		0.01 U		0.025 U		0.91		0.003 U		0.005 U		0.02 U	
EP-4	5/5/98	0.085		0.005 U		0.01 U		0.025 U		1.3		0.003 U		0.005 U		0.02 U	
EP-4	8/5/98	0.14		0.005 U		0.01 U		0.025 U		1.4		0.003 U		0.005 U		0.02 U	
EP-4	2/3/99	0.08		0.005 U		0.01 U		0.025 U		0.39		0.003 U		0.005 U		0.02 U	
EP-4	5/5/99	0.086		0.005 U		0.01 U		0.025 U		0.88		0.003 U		0.005 U		0.02 U	
EP-4	8/2/99	0.15		0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.9	2.2	0.003 U	0.015	0.005 U	0.005 U	0.02 U	0.025 U
EP-4	10/25/99		0.16		0.005 U		0.012		0.18		13		0.006		0.005 U		0.14
EP-4	1/29/00		0.13		0.005 U		0.01 U		0.025 U		7.5		0.007		0.005 U		0.074
EP-4	4/24/00		0.12		0.005 U		0.01 U		0.14		10		0.077		0.005 U		0.048
EP-4	8/1/00		0.14		0.005 U		0.01 U		0.025 U		3.2		0.016		0.005 U		0.025
EP-4	10/30/00		0.13		0.005 U		0.01 U		0.039		2.8		0.023		0.005 U		0.068
EP-4	10/31/00		0.14		0.005 U		0.01 U		0.029		2		0.017		0.005 U		0.063
EP-4	2/5/01		0.072		0.005 U		0.01 U		0.045		3.3		0.022		0.005 U		0.042
EP-4	5/4/01		0.075		0.005 U		0.01 U		0.26		22		0.1		0.005 U		0.17
EP-4	7/16/01	0.095	0.11	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.047	0.63	6.0	0.003 U	0.038	0.005 U	0.005 U	0.02 U	0.09
EP-4	10/29/01	0.1	0.14	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.023 U	0.98	2.9	0.003 U	0.01	0.005 U	0.005 U	0.02 U	0.04
EP-4	2/6/02	0.07	0.079	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.047	0.44	7.2	0.003 U	0.038	0.005 U	0.005 U	0.02 U	0.082
EP-4	4/29/02	0.073	0.079	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.041	0.4	4.8	0.003 U	0.03	0.005 U	0.005 U	0.02 U	0.03
EP-4	8/5/02	0.09	0.097	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.034	0.39	5	0.003 U	0.017	0.007	0.008	0.02 U	0.032
EP-4	11/4/02																
EP-43	11/3/97	0.78		0.005 U		0.01 U		0.025 U		1.1		0.003 U		0.003		0.02 U	
EP-43	2/3/98	1.2		0.005 U		0.01 U		0.025 U		0.17		0.003 U		0.15		0.02 U	
EP-43	5/20/98	0.72		0.005 U		0.01 U		0.025 U		0.6		0.004 U		0.52		0.02 U	
EP-43	8/27/98	0.78		0.005 U		0.01 U		0.025 U		0.15		0.005 U		0.61		0.04	
EP-43	11/16/98	7		0.005 U		0.01 U		0.025 U		5		0.003 U		0.094		0.02	
EP-43	2/25/99	1.3		0.005 U		0.01 U		0.025 U		0.48		0.003 U		0.17		0.02 U	
EP-43	2/25/99	1.1		0.005 U		0.01 U		0.025 U		0.77		0.003 U		0.19		0.02 U	
EP-43	5/14/99	0.37		0.005 U		0.01 U		0.025 U		0.96		0.003 U		0.14		0.02 U	
EP-43	8/11/99	0.33	0.32	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	1.8	1.7	0.003 U	0.003 U	0.27	0.27	0.02 U	0.02 U
EP-43	8/11/99	0.32	0.33	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	1.7	1.7	0.003 U	0.003 U	0.26	0.28	0.02 U	0.02 U
EP-43	10/29/99				0.005 U		0.01 U		0.027		1.7		0.015		0.15		0.03
EP-43	2/8/00		1.3		0.005 U		0.054		0.035		2.4		0.023		0.12		0.028
EP-43	8/16/00		1.4		0.005 U		0.046		0.069		2.1		0.031		0.14		0.054
EP-43	11/14/00		1.1		0.005 U		0.01 U		0.025 U		0.1		0.006		0.05		0.028
EP-43	2/26/01		0.62		0.005 U		0.01 U		0.025 U		0.4		0.004		0.078		0.022
EP-43	5/17/01		0.81		0.005 U		0.014		0.025 U		0.7		0.015		0.031		0.038
EP-43	7/30/01	0.24	0.44	0.005 U	0.005 U	0.01 U	0.031	0.025 U	0.026	0.24	1.3	0.006	0.022	0.01	0.011	0.028	0.035
EP-43	11/19/01	0.35	0.4	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.41	0.73	0.003 U	0.006	0.007	0.016	0.02 U	0.031
EP-43	2/21/02	0.71	0.83	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.023 U	0.12	0.67	0.003 U	0.009	0.037	0.056	0.02 U	0.039
EP-43	5/14/02	0.2	0.18	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.17	0.65	0.003 U	0.009	0.013	0.014	0.02 U	0.041
EP-43	8/21/02	0.59	0.86	0.005 U	0.005 U	0.01 U	0.01 U	0.025 U	0.025 U	0.17	0.33	0.003 U	0.009	0.013	0.031	0.02 U	0.029

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-44	10/26/99		3.1		0.005	U	0.01	0.004	0.036		1.1	0.028	U	0.039	0.11	179	0.12
EP-49	11/19/97	207		43		0.24		5.1		1732		0.11		0.11			
EP-49	2/19/98	464		43		0.047		0.089		2781		0.014		0.14		1960	
EP-49	5/21/98	274		43		0.1		0.044		1609		0.004	U	0.19		1138	
EP-49	8/27/98	417		40		0.05	U	0.1	U	1833		0.008		0.1	U	1450	
EP-49	11/16/98	254		38		0.037		0.025		1541		0.003	U	0.1	U	971	
EP-49	2/25/99	320		26		0.05	U	0.025	U	1266		0.003	U	0.25		750	
EP-49	5/14/99	354		29		0.011		0.031		1548		0.005		0.12	U	1603	
EP-49	11/2/99		221		13		0.023		1.2		0.31	0.78		0.11			420
EP-49	1/29/00		40		0.28		0.017		0.045		49	0.023		0.056			50
EP-49	4/28/00		42		0.053		0.01	U	0.023	U	29	0.007		0.1			35
EP-49	8/7/00		34		0.088		0.02		0.021		21	0.007		0.05			32
EP-49	11/7/00		33		0.038		0.01	U	0.023	U	25	0.003	U	0.051			30
EP-49	2/20/01		26		0.024		0.014		0.025	U	9.5	0.006		0.11			19
EP-49	2/20/01		26		0.033		0.011		0.025	U	9.4	0.006		0.12			19
EP-49	5/10/01		17		0.03		0.02	U	0.025	U	1.6	0.003		0.089			11
EP-49	7/26/01	21	11	0.035	0.15	0.01	U	0.01	U	0.025	U	0.11	0.83	0.17	0.003	0.14	10
EP-49	11/15/01	19	18	0.06	0.063	0.01	U	0.01	U	0.025	U	0.4	0.54	0.003	0.003	0.19	9.7
EP-49	11/15/01	18	18	0.059	0.061	0.01	U	0.01	U	0.025	U	0.18	0.56	0.003	0.003	0.18	9.4
EP-49	2/20/02	19	18	0.074	0.066	0.01	U	0.01	U	0.025	U	0.13	0.16	0.003	0.003	0.18	9.3
EP-49	8/13/02	13	15	0.023	0.033	0.01	U	0.01	U	0.025	U	0.037	0.15	0.6	0.003	0.18	9.2
EP-49	8/13/02	12	15	0.024	0.032	0.01	U	0.01	U	0.025	U	0.031	0.26	1.7	0.003	0.18	9.0
EP-49	11/25/02	0.45	0.83	0.005	0.005	0.01	U	0.014	0.025	U	0.19	0.8	0.003	0.01	0.017	0.027	0.022
EP-5	8/6/97	0.047		0.005	U	0.016		0.025	U	0.31		0.003	U	0.003	U	0.02	U
EP-5	11/4/97	0.033		0.005	U	0.01	U	0.025	U	0.1	U	0.01		0.003	U	0.027	U
EP-5	2/4/98	0.059		0.005	U	0.01	U	0.025	U	0.21	U	0.003	U	0.005	U	0.021	U
EP-5	5/5/98	0.05		0.005	U	0.01	U	0.025	U	0.21		0.003		0.005	U	0.027	U
EP-5	8/5/98	0.056		0.005	U	0.01	U	0.025	U	0.86		0.003	U	0.005	U	0.028	U
EP-5	11/3/98	0.069	U	0.005	U	0.01	U	0.01	U	0.16		0.005		0.005	U	0.025	U
EP-5	2/3/99	0.037	U	0.005	U	0.01	U	0.025	U	0.11		0.003		0.005	U	0.029	U
EP-5	5/5/99	0.054		0.005	U	0.01	U	0.025	U	0.1	U	0.005		0.005	U	0.032	U
EP-5	8/2/99	0.061	0.057	0.005	U	0.005	U	0.012	0.001	U	0.025	U	0.1	0.003	U	0.005	U
EP-5	10/25/99		0.042		0.005	U		0.01	U	0.55		0.43	0.13		0.15	0.04	
EP-5	4/24/00		0.044		0.005	U		0.01	U	0.13		0.19	0.009	0.009	0.027	0.03	
EP-5	8/1/00		0.13		0.005	U		0.01	U	0.047		0.16	0.017	0.017	0.006	0.13	0.01
EP-5	10/31/00		0.08		0.005	U		0.01	U	0.055		0.1	0.039		0.019	0.078	0.01
EP-5	2/5/01		0.064		0.005	U		0.01	U	0.078		1.5	0.029		0.013	0.044	0.01
EP-5	5/4/01		0.095		0.005	U		0.01	U	0.16		1.8	0.027		0.005	0.061	0.01
EP-5	7/16/01	0.1		0.005	U	0.005	U	0.01	U	0.029		0.035	0.016		0.005	0.028	0.1
EP-5	10/29/01	0.12	0.12	0.005	U	0.005	U	0.01	U	0.049		0.039	0.01		0.005	0.007	0.091
EP-5	2/6/02	0.068	0.062	0.005	U	0.005	U	0.01	U	0.061	U	0.068	0.003	0.012	0.015	0.02	0.031
EP-5	4/29/02	0.12	0.098	0.005	U	0.006	U	0.01	U	0.01	U	0.089	0.14	0.1	0.005	0.02	0.061
EP-5	8/5/02	0.14	0.12	0.005	U	0.005	U	0.01	U	0.01	U	0.076	0.11	0.1	0.006	0.02	0.033
EP-5	11/4/02	0.11	0.1	0.005	U	0.005	U	0.01	U	0.01	U	0.075	0.079	0.1	0.003	0.049	0.072
EP-51	8/11/97																
EP-51	8/26/97	0.033		0.034		0.029		0.076		1.4		0.003	U	0.22		0.31	
EP-51	11/6/97	0.29		0.18		0.031		0.19		2.2		0.003	U	0.16		4.1	
EP-51	11/6/97	0.28		0.21		0.022		0.19		2.2		0.003	U	0.19		5.1	
EP-51	2/12/98	10		3.9		0.01	U	5.6		1.8		0.003	U	0.17		8.1	
EP-51	5/11/98	0.26		0.15		0.01	U	0.44		0.54		0.003	U	0.13		2.2	

Appendix H

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-51	8/12/98	0.25		0.076		0.01	U	0.3		0.98		0.003	U	0.24			
EP-51	11/5/98	0.079	J4	0.062		0.013		0.26		2		0.003	U	0.25		0.97	
EP-51	11/5/98	0.11	J4	0.061		0.014		0.24		2		0.003	U	0.25		0.96	
EP-51	2/9/99	0.12		0.078		0.017		0.094		2.2	J4	0.003	U	0.23			
EP-51	2/9/99	0.11		0.075		0.016		0.077		2.6	J4	0.003	U	0.23			
EP-51	5/6/99	0.3		0.049		0.01	U	0.098		1.3		0.003	U	0.25		0.71	
EP-51	8/4/99	0.44		0.014	0.035	0.01	U	0.1	0.1	0.31	J4	0.003	U	0.23	0.23	0.55	0.35
EP-51	8/4/99	0.46	0.55	0.033	0.033	0.01	U	0.51	0.047	0.084	UJ4	0.003	U	0.24	0.24	0.51	0.33
EP-51	11/2/99		0.97		0.034		3			4.2	J4	0.038		0.29			0.5
EP-51	1/26/00		1.2		0.031		4.7			6.2		0.051		0.23			0.43
EP-51	4/28/00		0.56		0.011		1.5			2.3	J4	0.02		0.27			0.46
EP-51	8/7/00		0.75		0.029		4.3			5.1		0.039		0.27			0.43
EP-51	8/7/00		0.88		0.03		5.5			5.9		0.047		0.27			0.47
EP-51	11/7/00		0.48		0.038		2.1	J4		8.1	J4	0.031		0.2			0.45
EP-51	11/7/00		0.42		0.038		1.4	U		5.5	J4	0.032		0.2			0.45
EP-51	2/16/01		0.37		0.034		1.6			9.8		0.015		0.22			0.69
EP-51	3/10/01		0.34		0.038		0.99			1.8		0.011		0.22			0.49
EP-51	7/20/01	0.14	0.29	0.038	0.041	0.077	1.5	0.091	0.17	4.1	5.8	0.003	U	0.18	0.19	0.18	0.56
EP-51	11/5/01	0.11	0.3	0.043	0.04	0.024	2.2	0.11	0.19	1.5	3.9	0.003	U	0.18	0.18	0.47	0.44
EP-51	2/12/02	0.13	0.27	0.043	0.042	0.022	1.3	0.11	0.19	2.8	4	0.003	U	0.17	0.18	0.47	0.51
EP-51	5/9/02	0.16	0.37	0.046	0.044	0.01	U	1.4	0.13	0.35	4.7	0.003	U	0.2	0.3	0.62	0.83
EP-51	8/12/02	0.13	0.22	0.053	0.052	0.01	U	0.51	0.14	0.21	0.5	0.003	U	0.17	0.17	0.69	0.69
EP-51	11/6/02	0.12	0.25	0.048	0.048	0.017	0.99	0.16	0.24	0.61	2.6	0.003	U	0.16	0.15	0.53	0.58
EP-52	11/6/97	0.97		0.64		0.017		0.53		0.55		0.044		0.35		2.6	
EP-52	2/12/98	1.6		0.71		0.01	U	0.45		0.55		0.043		0.3		3.6	
EP-52	8/12/98	1.6		0.56		0.01	U	0.69		0.1	U	0.05		0.34		3.6	
EP-52	8/12/98	1.7		0.59		0.01	U	0.7		0.1	U	0.051		0.36		2.8	
EP-52	11/5/98	1.7	J4	0.6		0.01	U	0.59		0.1	U	0.13		0.35		2.9	
EP-52	2/9/99	0.23		0.59		0.032		0.41		1.7	J4	0.021		0.25		3.9	
EP-52	5/6/99	0.81		1.9		0.057		0.32		2.5		0.021		0.38		3.1	
EP-52	8/5/99	1	1.4	0.51	0.51	0.024	0.16	0.36	0.39	0.59	2.2	0.041	0.14	0.28	0.29	2.1	2.7
EP-52	10/29/99		1.6		0.45		0.097		0.5		2.1	J4	0.75		0.25		2.3
EP-52	1/26/00		1.5		0.43		0.041		0.44		1.2		0.51		0.21		1.7
EP-52	4/28/00		1.5		0.51			0.12		0.64		0.96		0.24		3.5	J4
EP-52	8/7/00		1.3		0.43			0.12		0.54		0.83		0.18		2.7	
EP-52	11/7/00		1.7		0.45			0.19	J4	0.57	0.4	1.5		0.18		2.8	
EP-52	2/20/01		1.5		0.36			0.18		0.59				0.2		2.2	
EP-52	5/10/01		1.7		0.45			0.32		0.57		1.1		0.17		3.5	
EP-52	7/20/01	0.22	0.81	0.4	0.4	0.01	U	0.072	0.3	0.42	0.19	4	0.05	0.68	0.17	0.7	2.3
EP-52	11/5/01	0.25	0.61	0.42	0.49	0.011		0.063	0.31	0.45	0.1	U	2.4	0.061	0.58	0.2	3.1
EP-52	2/12/02	0.17	0.69	0.41	0.41	0.018		0.072	J4	0.26	0.41	0.3	2.2	0.056	0.67	0.17	3.4
EP-52	5/9/02	0.11	0.82	0.42	0.4	0.01	U	0.2	0.3	0.61	0.23	5.6	0.032	0.9	0.17	0.15	3.5
EP-52	8/12/02	0.2	0.61	0.42	0.42	0.01	U	0.052	0.36	0.43	0.17	2.2	0.046	0.66	0.16	0.19	3.1
P-53	8/11/97	51		1.3		0.01	U	0.025	U	0.1	U	0.003	U	0.76		1.6	
P-53	2/4/98	63		1.4		0.01	U	0.012	J4	0.1	U	0.003	U	1.7		4.3	
P-53	6/10/98	63		1.3		0.01	U	0.025	U	0.1	U	0.003	U	1.3		4.2	
P-53	8/12/98	62		1.4		0.01	U	0.025	U	0.1	U	0.003	U	1.2		4.5	
P-53	11/5/98	56	J4	1.6		0.01	U	0.025	U	0.1	U	0.003	U	3		5.2	
P-53	2/4/99	55		1.7		0.01	U	0.025	U	0.1	U	0.003	U	1.4		5.7	
P-53	5/5/99	54		1.4		0.01	U	0.025	U	0.1	U	0.003	U	1.1		4.6	

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-53	8/4/99	44	42	0.46	0.46	0.01	U	0.01	0.025	U	0.025	0.003	U	0.004	U	0.25	1.1
EP-53	10/26/99		53		1.8		0.01		0.041		7		0.006			1.7	5.9
EP-53	2/1/00		45		1.2		0.01		0.04		13		0.011			1.1	4
EP-53	5/3/00		32		0.38		0.01		0.025		8.8		0.007			0.53	1.1
EP-53	8/16/00		35		1.3		0.01		0.043		6.6		0.008			2.1	3.4
EP-53	11/13/00		49		1.4		0.01		0.027		6.7		0.009			1.2	4.7
EP-53	2/21/01		37		1		0.01		0.025		3.8		0.003			1.1	3.8
EP-53	5/10/01		32		6.47		0.02		0.034		39		0.019			0.66	2.5
EP-53	7/10/01	30	27	0.19	0.22	0.01	U	0.01	0.025	U	10	0.005	U	0.008	0.64	0.52	0.01
EP-53	11/13/01	22	22	0.072	0.094	0.01	U	0.01	0.025	U	4.6	0.003	U	0.019	0.54	0.66	0.25
EP-53	2/13/02	19	18	0.086	0.1	0.01	U	0.01	0.025	U	4.5	0.003	U	0.006	0.51	0.55	0.5
EP-53	5/10/02	22	22	0.053	0.061	0.01	U	0.01	0.04	0.041	15	0.003	U	0.004	0.32	0.51	0.2
EP-53	8/14/02	32	35	0.38	0.39	0.01	U	0.01	0.025	U	0.3	0.003	U	0.005	3.2	0.46	0.89
EP-53	11/6/02	21	33	0.16	0.18	0.01	U	0.01	0.034	0.053	0.1	0.003	U	0.003	0.89	0.02	0.75
EP-54	8/11/97																
EP-54	8/25/97	22		5.7		0.01	U		0.18		13	0.003	U		0.075		113
EP-54	11/6/97	29		4.5		0.01	U		0.57		14	0.003	U		0.071		64
EP-54	2/12/98	27		2		0.01	U		0.21		2.3	0.003	U		0.065		41
EP-54	5/11/98	50		1.5		0.01	U		0.12		3.4	0.011			0.082		12
EP-54	8/12/98	59		0.84		0.01	U		0.06		2.1	0.035			0.065		17
EP-54	11/5/98	50	U	0.7		0.01	U		0.086		0.24	0.007			0.11		12
EP-54	2/9/99	50		0.55		0.01	U		0.066		0.16	0.004			0.098		10
EP-54	5/6/99	56		0.53		0.01	U		0.059		0.22	0.005			0.07		4.2
EP-54	5/7/99	47		0.47		0.01	U		0.089		0.1	0.001	U		0.11		8
EP-54	8/4/99	50	45	0.49	0.47	0.01	U	0.015	0.1	0.12	0.16	0.003	U	0.007	0.17	0.13	9.8
EP-54	10/29/99		49		0.86		0.013		0.62		11		0.019		0.71		10
EP-54	1/28/00		57		0.57		0.016		0.38		16		0.022		0.12		12
EP-54	4/28/00		42		0.6		0.01		0.36		6.9		0.011		0.16		10
EP-54	8/7/00		34		0.66		0.02		0.55		14		0.018		0.13		11
EP-54	11/7/00		37		0.7		0.019		0.49		13		0.015		0.12		2
EP-54	2/20/01		25		0.45		0.01		0.22		2.8		0.008		0.12		9.8
EP-54	5/10/01		37		0.67		0.02		0.067		21		0.01		0.11		10
EP-54	7/26/01	22	26	0.34	0.45	0.01	U	0.01	0.13	0.37	0.1	0.003	U	0.013	0.16	0.16	0.9
EP-54	11/5/01	24	26	0.34	0.42	0.01	U	0.01	0.19	0.36	0.1	0.003	U	0.015	0.13	0.14	8.6
EP-54	2/13/02	21	27	0.42	0.53	0.01	U	0.015	0.18	0.51	0.1	0.003	U	0.016	0.11	0.12	8.2
EP-54	5/10/02	17	24	0.19	0.31	0.01	U	0.01	0.053	0.19	1.1	0.003	U	0.013	0.18	0.17	6.8
EP-54	8/13/02	16	20	0.32	0.48	0.01	U	0.01	0.25	0.5	0.1	0.003	U	0.016	0.14	0.15	6.9
EP-54	11/6/02	17	37	0.4	0.79	0.01	U	0.015	1.1	0.1	23	0.003	U	0.033	0.12	0.15	3.5
EP-55	8/15/97	62		0.13		0.01	U		0.025		229	0.02			0.28		100
EP-55	11/19/97	59		0.043		0.01	U		0.025		130	0.003	U		0.24		82
EP-55	2/12/98	57		0.042		0.01	U		0.025		39	0.003	U		0.19		71
EP-55	5/20/98	55		0.013		0.01	U		0.025		84	0.004	U		0.18		13
EP-55	8/27/98	61		0.068		0.01	U		0.025		77	0.003	U		0.068		35
EP-55	11/15/98	40		0.005	U	0.01	U		0.025		71	0.003	U		0.1	U	27
EP-55	2/1/99	55		0.005	U	0.01	U		0.025		55	0.003	U		0.079		41
EP-55	5/14/99	26		0.005	U	0.01	U		0.025		52	0.003	U		0.1		20
EP-55	8/10/99	25	29	0.005	U	0.01	U	0.01	0.025	U	35	0.003	U	0.028	0.052	12	27
EP-55	10/29/99		36		0.58		0.011		0.11		57		0.11		0.17		51
EP-55	2/7/00		54		0.16		0.01		0.031		46		0.031		0.15		29
EP-55	5/4/00		54		1.3		0.026		0.28		67		0.6		0.27		102

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l					
EP-55	8/16/00		63		0.56		0.01	U	0.064		41		0.14		0.12		11					
EP-55	11/14/00		51		0.38		0.01	U	0.027		31		0.08		0.11		32					
EP-55	2/22/01		60		0.84		0.019		0.18		50		0.59		0.3		77					
EP-55	5/11/01		63		2.3		0.02	U	0.17		89		0.44		0.36		177					
EP-55	7/25/01	43	92	0.005	U	8.7	0.01	U	0.09	0.025	U	0.28	16	392	U	0.003	U	1.1	0.027	0.43	4.4	921
EP-55	11/14/01																					
EP-55	5/10/02																					
EP-56	8/11/97																					
EP-56	8/26/97	1.9		0.004		0.01	U		0.025	U	0.1	U	0.303		0.048		0.020					
EP-56	11/4/97	2.9		0.005	U	0.01	U		0.025	U	0.1	U	0.003	U	0.057		0.022					
EP-56	2/4/98	2.2		0.005	U	0.01	U		0.027	U	0.1	U	0.003	U	0.048		0.025		U			
EP-56	5/7/98	1.9		0.005	U	0.01	U		0.025		0.1	U	0.003		0.058		0.030					
EP-56	8/12/98	1.5		0.005	U	0.01	U		0.025	U	0.1	U	0.003	U	0.056		0.021					
EP-56	11/4/98	1	U	0.005	U	0.01	U		0.025	U	0.1	U	0.003		0.018		0.032					
EP-56	2/4/99	0.74	U	0.005	U	0.01	U		0.025	U	0.1	U	0.004		0.011		0.037		U			
EP-56	2/4/99	1.3	U	0.005	U	0.01	U		0.025	U	0.1	U	0.004		0.013		0.032		U			
EP-56	5/4/99	1.3		0.005	U	0.01	U		0.025	U	0.1	U	0.005		0.015		0.037		U			
EP-56	8/4/99	2.8		0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.025	U	0.01	U	0.029		0.04		0.049
EP-56	10/26/99		0.33	U		0.005	U		0.01	U			0.047		0.016		0.041		U			0.05
EP-56	10/26/99		0.43	U		0.005	U		0.022	U			0.064		0.026		0.031		U			0.06
EP-56	2/1/00		2.7	U		0.005	U		0.012		0.028		29	U	0.017		0.05					0.045
EP-56	2/1/00		2.1	U		0.005	U		0.012		0.03		23	U	0.015		0.031					0.041
EP-56	5/3/00		1.2		0.005	U		0.014					32		0.020		0.015					0.035
EP-56	8/16/00		1.4		0.005	U		0.063					77		0.036		0.033		U			0.11
EP-56	11/13/00		2.5		0.005	U		0.021					25		0.02		0.016					0.053
EP-56	2/22/01		2.1		0.005	U		0.064					73		0.025		0.029					0.21
EP-56	5/10/01		3.1		0.005	U		0.15					235		0.099		0.028					0.57
EP-56	7/26/01	3	3	0.005	U	0.005	U	0.01	U	0.02	0.025	U	0.038	0.01	U	0.038		0.002		0.027		0.089
EP-56	11/14/01	2.4	2.4	0.005	U	0.005	U	0.01	U	0.014	0.025	U	0.025	0.1	U	0.11	0.003	U	0.009	0.036	0.028	0.036
EP-56	2/13/02	2.7	2.7	0.005	U	0.005	U	0.01	U	0.067	0.025	U	0.034	0.1	U	0.55	0.003	U	0.034	0.024	0.022	0.02
EP-56	5/9/02	2.8	3	0.018		0.019	0.01	U	0.029	0.025	U	0.049	0.1	U	0.15	0.003	U	0.012	0.043	0.046	0.033	0.13
EP-56	8/12/02	3	3.3	0.034		0.037	0.01	U	0.01	U	0.025	U	0.028	0.1	U	0.36	0.003	U	0.009	0.04	0.038	0.12
EP-56	11/12/02	3	3	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.027	0.1	U	0.45	0.003	U	0.005	0.034	0.013
EP-57	8/16/97	1.1		0.005	U		0.01	U		0.025	U	0.5		0.003	U		0.33				0.027	
EP-57	11/14/97	0.97		0.005	U		0.01	U		0.025	U	0.38		0.003	U		0.005	U			0.02	U
EP-57	2/18/98	0.98	U	0.005	U		0.01	U		0.025	U	0.1	U	0.003	U		0.005	U			0.025	U
EP-57	5/18/98	0.79		0.005	U		0.01	U		0.025	U	0.1	U	0.003	U		0.005	U			0.02	U
EP-57	8/24/98	0.6		0.005	U		0.01	U		0.025	U	0.28		0.003	U		0.01	U			0.02	U
EP-57	11/16/98	0.52		0.005	U		0.01	U		0.025	U	0.35		0.003	U		0.005	U			0.02	U
EP-57	2/24/99	0.56		0.005	U		0.01	U		0.025	U	0.1	U	0.003	U		0.028				0.02	U
EP-57	5/13/99	0.35		0.005	U		0.01	U		0.025	U	0.1	U	0.003	U		0.04				0.02	U
EP-57	8/10/99	0.25	0.29	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.025	U	0.27	0.1	U	0.003	0.005	0.006	0.02
EP-57	11/3/99	0.5		0.005	U		0.01	U		0.025	U			0.012	U		0.005	U			0.02	U
EP-57	2/7/00	0.43		0.005	U		0.01	U		0.025	U			0.004	U		0.015				0.02	U
EP-57	5/8/00		0.37		0.005	U		0.01	U		0.025	U			0.006	U		0.01			0.02	U
EP-57	8/15/00		0.35	U	0.005	U		0.01	U		0.025	U			0.003	U		0.005	U		0.02	U
EP-57	11/13/00		0.25		0.005	U		0.01	U		0.025	U			0.003	U		0.005	U		0.02	U
EP-57	2/23/01		0.41		0.005	U		0.01	U		0.025	U			0.003	U		0.005	U		0.024	U
EP-57	5/16/01		0.32		0.005	U		0.01	U		0.025	U			0.003	U		0.005	U		0.02	U
EP-57	7/5/01	0.17	0.38	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.025	U	0.1	U	0.003	U	0.003	U	0.005

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-57	11/15/01	0.038	0.058	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.02	U
EP-57	2/21/02	0.32	0.23	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.02	U
EP-57	5/14/02	0.09	0.083	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.02	U
EP-57	8/21/02	0.067	0.39	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.02	U
EP-57	11/25/02																
EP-58	8/16/97	1.4		0.005	U			0.01	U			0.003	U			0.02	
EP-58	11/14/97	4.8		0.005	U			0.01	U			0.003	U			0.02	
EP-58	2/18/98	4.2		0.005	U			0.01	U			0.003	U			0.02	
EP-58	5/18/98	4.5		0.005	U			0.01	U			0.003	U			0.02	
EP-58	8/24/98	4.1		0.005	U			0.01	U			0.003	U			0.02	
EP-58	11/16/98	3.7		0.005	U			0.01	U			0.003	U			0.02	
EP-58	2/24/99	3.7		0.005	U			0.01	U			0.003	U			0.02	
EP-58	5/13/99	5.1		0.005	U			0.01	U			0.003	U			0.02	
EP-58	8/10/99	4.1	4	0.005	U	0.005	U	0.01	U	0.01	2.1	0.003	U	0.019	0.037	0.02	0.02
EP-58	11/3/99		4.2		0.005	U	0.02		0.11		30		0.082		0.1		0.15
EP-58	2/7/00		3.4		0.005	U	0.01		0.025		7.6		0.016		0.16		0.031
EP-58	5/8/00		3.6		0.005	U	0.01		0.025		4.2		0.013		0.069		0.031
EP-58	5/8/00		3.7		0.005	U	0.01		0.025		3.9		0.01		0.065		0.034
EP-58	8/15/00		3.1		0.005	U	0.01		0.025		2.1		0.006		0.025		0.02
EP-58	8/15/00		5.8		0.005	U	0.01		0.025		2		0.005		0.024		0.02
EP-58	11/13/00		3.4		0.005	U	0.01		0.025		1.7		0.003		0.027		0.02
EP-58	2/23/01		3.2		0.005	U	0.01		0.025		1.2		0.003		0.053		0.013
EP-58	2/23/01		5.5		0.005	U	0.01		0.025		0.97		0.003		0.053		0.018
EP-58	5/16/01		3.7		0.005	U	0.01		0.025		6.5		0.003		0.029		0.02
EP-58	7/30/01	3.2	3.3	0.005	U	0.005	U	0.01	U	0.025	0.58	2.9	0.003	U	0.008	0.1	0.023
EP-58	11/15/01	4	3.8	0.005	U	0.005	U	0.01	U	0.025	2	2.5	0.003	U	0.037	0.032	0.02
EP-58	2/21/02	4.4	3.7	0.005	U	0.005	U	0.01	U	0.025	1.9	1.9	0.003	U	0.003	0.06	0.02
EP-58	2/21/02	3.8	3.9	0.005	U	0.005	U	0.01	U	0.025	1.9	2.5	0.003	U	0.003	0.072	0.02
EP-58	5/14/02	4	4.5	0.005	U	0.005	U	0.01	U	0.025	0.78	1.6	0.003	U	0.003	0.038	0.02
EP-58	8/21/02	4.6	4.3	0.005	U	0.005	U	0.01	U	0.025	1.1	1.4	0.003	U	0.003	0.11	0.02
EP-58	8/21/02	4.5	4.2	0.005	U	0.005	U	0.01	U	0.025	1.1	1.5	0.003	U	0.003	0.11	0.02
EP-58	11/25/02	4.9	5	0.005	U	0.005	U	0.01	U	0.025	1.8	2	0.003	U	0.003	0.087	0.027
EP-58	11/25/02	4.8	4.8	0.005	U	0.005	U	0.01	U	0.026	2.2	1.9	0.003	U	0.003	0.09	0.028
EP-59	8/9/97	3.6		0.005	U			0.01	U			0.003	U			0.025	
EP-59	11/5/97	1.8		0.005	U			0.01	U			0.003	U			0.021	
EP-59	2/5/98	3.4		0.005	U			0.01	U			0.003	U			0.02	
EP-59	5/8/98	3.1		0.005	U			0.01	U			0.003	U			0.043	
EP-59	8/10/98	3.2		0.005	U			0.01	U			0.003	U			0.046	
EP-59	8/10/98	3.2		0.005	U			0.01	U			0.003	U			0.059	
EP-59	11/9/98	2.9		0.007	U			0.01	U			0.003	U			0.22	
EP-59	2/10/99	2.6		0.005	U			0.01	U			0.003	U			0.045	
EP-59	2/10/99	2.6		0.005	U			0.01	U			0.003	U			0.055	
EP-59	5/6/99	3.1		0.005	U			0.01	U			0.003	U			0.049	
EP-59	8/3/99	2.8	2.7	0.005	U	0.005	U	0.01	U	0.025	0.1	0.22	0.003	U	0.31	0.28	0.02
EP-59	10/27/99		2.6		0.005	U	0.12		0.062		2.1		0.015		0.27		0.05
EP-59	1/28/00		2.9		0.005	U	0.032		0.025		0.44		0.003		0.26		0.039
EP-59	5/3/00		2.4		0.005	U	0.033		0.025		0.28		0.003		0.25		0.02
EP-59	8/10/00		2.3		0.005	U	0.027		0.025		0.38		0.003		0.23		0.02
EP-59	8/10/00		2.4		0.005	U	0.026		0.025		0.12		0.003		0.24		0.02
EP-59	10/31/00		2.5		0.005	U	0.031		0.025		0.44		0.004		0.28		0.041

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-59	2/21/01		2.5		0.005		0.018		0.025		0.14		0.001		0.11		0.11
EP-59	2/21/01		2.2		0.005		0.01		0.025		0.10		0.003		0.29		0.1
EP-59	3/15/01		2.2		0.005		0.01		0.025		0.1		0.003		0.25		0.11
EP-59	7/27/01	2.1	2	0.005	0.005	0.01	0.05	0.025	0.025	0.18	0.67	0.003	0.003	0.24	0.21	0.55	0.064
EP-59	11/14/01	2.3	2.3	0.005	0.005	0.01	0.015	0.025	0.025	0.1	0.18	0.003	0.003	0.24	0.23	0.02	0.02
EP-59	11/14/01	2.3	2.3	0.005	0.005	0.01	0.014	0.025	0.025	0.1	0.17	0.003	0.003	0.23	0.24	0.02	0.02
EP-59	2/13/02	2.1	2	0.011	0.01	0.01	0.018	0.025	0.025	0.1	0.14	0.003	0.003	0.2	0.19	0.08	0.08
EP-59	5/9/02	2.1	1.9	0.005	0.005	0.01	0.026	0.025	0.025	0.1	0.26	0.003	0.003	0.22	0.17	0.02	0.02
EP-59	5/9/02	2.2	2.2	0.005	0.005	0.01	0.031	0.025	0.025	0.1	0.3	0.003	0.003	0.23	0.19	0.02	0.02
EP-59	8/13/02	2.1	2.4	0.005	0.005	0.01	0.02	0.025	0.025	0.1	0.32	0.003	0.003	0.23	0.25	0.14	0.14
EP-59	11/12/02	2	2	0.005	0.005	0.01	0.024	0.025	0.025	0.1	0.34	0.003	0.003	0.2	0.2	0.02	0.02
EP-6	8/6/97	0.032		0.005		0.01		0.025		0.1		0.003		0.033		0.021	
EP-6	11/4/97	0.031		0.005		0.01		0.025		0.1		0.003		0.049		0.023	
EP-6	2/4/98	0.023		0.005		0.01		0.025		0.1		0.003		0.009		0.02	
EP-6	5/5/98	0.021		0.005		0.01		0.025		0.1		0.003		0.01		0.044	
EP-6	8/5/98	0.024		0.005		0.01		0.025		0.1		0.003		0.034		0.045	
EP-6	11/3/98	0.025		0.005		0.01		0.025		0.1		0.003		0.035		0.025	
EP-6	2/1/99	0.014		0.005		0.01		0.025		0.23		0.003		0.008		0.02	
EP-6	5/1/99	0.023		0.005		0.01		0.025		0.1		0.003		0.007		0.025	
EP-6	5/5/99	0.023		0.005		0.01		0.025		0.1		0.003		0.007		0.029	
EP-6	8/2/99	0.021	0.027	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.12	0.003	0.003	0.043	0.028	0.02	0.02
EP-6	10/25/99		0.018		0.005		0.01		0.025		0.1		0.003		0.039		0.02
EP-6	1/28/00		0.02		0.005		0.01		0.031		0.39		0.016		0.042		0.02
EP-6	4/24/00		0.022		0.005		0.01		0.025		0.1		0.004		0.054		0.02
EP-6	8/1/00		0.027		0.005		0.01		0.025		0.1		0.023		0.057		0.02
EP-6	10/30/00		0.032		0.005		0.01		0.025		0.1		0.003		0.038		0.017
EP-6	2/5/01		0.026		0.005		0.01		0.025		0.1		0.004		0.064		0.02
EP-6	5/4/01		0.033		0.007		0.01		0.025		0.16		0.01		0.068		0.027
EP-6	7/16/01	0.03	0.034	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.038	0.02	0.02	0.035
EP-6	10/25/01	0.018	0.02	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.21	0.003	0.003	0.057	0.054	0.02	0.047
EP-6	2/6/02	0.022	0.023	0.005	0.005	0.01	0.01	0.025	0.025	0.15	0.24	0.003	0.003	0.045	0.046	0.02	0.02
EP-6	4/29/02	0.021	0.02	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.18	0.003	0.004	0.038	0.037	0.02	0.02
EP-6	8/5/02	0.028	0.029	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.18	0.003	0.003	0.046	0.048	0.02	0.02
EP-6	11/4/02	0.008	0.027	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.19	0.003	0.003	0.055	0.075	0.02	0.055
EP-60	8/8/97	0.007		0.005		0.011		0.025		0.18		0.003		0.24		0.026	
EP-60	11/5/97	0.005		0.005		0.01		0.025		0.8		0.003		0.24		0.021	
EP-60	2/5/98	0.009		0.005		0.01		0.034		0.4		0.003		0.36		0.027	
EP-60	5/8/98	0.008		0.005		0.01		0.025		0.1		0.001		0.24		0.052	
EP-60	8/10/98	0.007		0.005		0.01		0.025		0.13		0.003		0.24		0.055	
EP-60	11/9/98	0.009		0.005		0.01		0.025		0.1		0.003		0.23		0.15	
EP-60	2/10/99	0.009		0.005		0.01		0.025		1.3		0.003		0.25		0.059	
EP-60	5/6/99	0.007		0.005		0.01		0.025		0.16		0.003		0.2		0.027	
EP-60	8/5/99	0.006	0.008	0.005	0.005	0.01	0.05	0.025	0.025	0.18	0.46	0.003	0.003	0.22	0.21	0.02	0.039
EP-60	10/27/99		0.01		0.005		0.26		0.025		2		0.003		0.18		0.02
EP-60	1/28/00		0.008		0.005		0.06		0.025		1.1		0.003		0.19		0.02
EP-60	5/3/00		0.009		0.005		0.43		0.025		1.9		0.003		0.21		0.021
EP-60	8/10/00		0.012		0.005		0.91		0.025		4.8		0.006		0.21		0.02
EP-60	10/31/00		0.012		0.005		0.97		0.025		3.9		0.003		0.2		0.038
EP-60	2/21/01		0.021		0.005		0.29		0.025		1.8		0.003		0.21		0.083
EP-60	5/15/01		0.012		0.005		0.28		0.025		2		0.003		0.21		0.057

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis ug/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-60	7/27/01	0.022	0.025	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.2	0.2	0.005	0.071
EP-60	11/14/01	0.019	0.019	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.18	0.18	0.01	0.02
EP-60	2/13/02	0.012	0.014	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.18	0.18	0.004	0.031
EP-60	5/9/02	0.017	0.018	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.26	0.26	0.02	0.026
EP-60	8/13/02	0.014	0.014	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.2	0.22	0.036	0.057
EP-61	8/16/97	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.12	0.12	0.021	0.021
EP-61	11/14/97	0.011	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.18	0.18	0.021	0.021
EP-61	2/18/98	0.025	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.35	0.35	0.003	0.003	0.16	0.16	0.02	0.02
EP-61	2/18/98	0.015	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.13	0.13	0.02	0.02
EP-61	5/18/98	0.008	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.18	0.18	0.003	0.003	0.11	0.11	0.022	0.022
EP-61	8/24/98	0.011	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.13	0.13	0.003	0.003	0.16	0.16	0.022	0.022
EP-61	11/16/98	0.008	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.11	0.11	0.003	0.003	0.29	0.29	0.02	0.02
EP-61	2/24/99	0.073	0.005	0.005	0.005	0.011	0.011	0.025	0.025	0.18	0.18	0.003	0.003	0.12	0.12	0.02	0.02
EP-61	5/13/99	0.011	0.005	0.005	0.005	0.015	0.015	0.025	0.025	0.25	0.25	0.003	0.003	0.29	0.29	0.02	0.02
EP-61	8/10/99	0.014	0.014	0.005	0.005	0.014	0.02	0.025	0.025	0.3	0.3	0.003	0.003	0.3	0.31	0.02	0.02
EP-61	11/3/99		0.039	0.005	0.005	0.021	0.021	0.091	0.091	0.14	0.14	0.003	0.003	0.17	0.17	0.005	0.005
EP-61	2/7/00		0.026	0.005	0.005	0.01	0.01	0.025	0.025	0.19	0.19	0.003	0.003	0.14	0.14	0.02	0.02
EP-61	5/8/00		0.013	0.005	0.005	0.01	0.01	0.025	0.025	0.31	0.31	0.004	0.004	0.12	0.12	0.021	0.021
EP-61	8/15/00		0.007	0.005	0.005	0.01	0.01	0.025	0.025	0.24	0.24	0.003	0.003	0.21	0.21	0.02	0.02
EP-61	11/13/00		0.01	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.12	0.12	0.02	0.02
EP-61	11/13/00		0.009	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.13	0.13	0.02	0.02
EP-61	2/23/01		0.011	0.005	0.005	0.01	0.01	0.025	0.025	0.38	0.38	0.003	0.003	0.29	0.29	0.006	0.006
EP-61	3/16/01		0.023	0.005	0.005	0.01	0.01	0.025	0.025	0.5	0.5	0.003	0.003	0.31	0.31	0.02	0.02
EP-61	7/30/01	0.011	0.008	0.005	0.005	0.014	0.012	0.025	0.025	0.2	0.2	0.003	0.003	0.3	0.29	0.02	0.02
EP-61	11/15/01	0.013	0.012	0.005	0.005	0.01	0.031	0.025	0.025	0.1	0.1	0.003	0.003	0.12	0.14	0.02	0.02
EP-61	2/21/02	0.025	0.036	0.005	0.005	0.01	0.13	0.025	0.025	0.27	0.27	0.003	0.004	0.34	0.35	0.02	0.02
EP-61	5/14/02	0.014	0.012	0.005	0.005	0.01	0.01	0.025	0.025	0.34	0.34	0.003	0.003	0.26	0.27	0.02	0.02
EP-61	5/14/02	0.013	0.012	0.005	0.005	0.01	0.018	0.025	0.025	0.3	0.3	0.003	0.003	0.29	0.27	0.02	0.02
EP-61	8/21/02	0.018	0.031	0.005	0.005	0.01	0.071	0.025	0.025	0.33	0.33	0.003	0.011	0.34	0.39	0.02	0.02
EP-62	8/9/97	1.1	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.16	0.16	0.021	0.021
EP-62	11/5/97	1.2	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.19	0.19	0.021	0.021
EP-62	2/5/98	0.84	0.003	0.003	0.003	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.19	0.19	0.022	0.022
EP-62	5/8/98	0.96	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.18	0.18	0.022	0.022
EP-62	8/10/98	1.2	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.16	0.16	0.022	0.022
EP-62	11/9/98	0.99	0.011	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.16	0.16	0.022	0.022
EP-62	2/10/99	0.77	0.024	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.17	0.17	0.022	0.022
EP-62	5/6/99	0.83	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.17	0.17	0.022	0.022
EP-62	8/3/99	0.77	0.75	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.31	0.30	0.025	0.031
EP-62	10/27/99	0.56		0.005	0.005	0.01	0.01	0.025	0.025	0.57	0.57	0.003	0.003	0.19	0.19	0.02	0.02
EP-62	1/28/00	0.82		0.005	0.005	0.01	0.01	0.025	0.025	0.34	0.34	0.003	0.003	0.26	0.26	0.02	0.02
EP-62	5/3/00	0.87		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.004	0.004	0.28	0.28	0.02	0.02
EP-62	8/10/00	1.1		0.005	0.005	0.01	0.01	0.025	0.025	0.14	0.14	0.003	0.003	0.28	0.28	0.02	0.02
EP-62	10/31/00	1.4		0.005	0.005	0.01	0.01	0.025	0.025	0.28	0.28	0.003	0.003	0.29	0.29	0.028	0.028
EP-62	2/21/01	1.1		0.01	0.01	0.01	0.01	0.025	0.025	0.31	0.31	0.003	0.003	0.31	0.31	0.02	0.02
EP-62	5/15/01	1.3		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.31	0.31	0.026	0.026
EP-62	7/27/01	1.1	1.2	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.26	0.24	0.071	0.079
EP-62	11/14/01	1.6	1.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.26	0.29	0.02	0.02
EP-62	2/13/02	1.3	1.2	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.25	0.24	0.033	0.036
EP-62	5/9/02	1.2	1.1	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.21	0.22	0.02	0.02
EP-62	8/13/02	1.6	1.7	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.28	0.27	0.009	0.012

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-62	11/12/02	1.5	1.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.12	0.003	0.24	0.24	0.025	0.025
EP-63	8/9/97	0.019		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.23	0.23	0.025	0.025
EP-63	11/5/97	0.021		0.005	0.005	0.01	0.01	0.025	0.025	0.11	0.11	0.003	0.21	0.21	0.025	0.025
EP-63	2/5/98	0.02		0.005	0.005	0.01	0.01	0.025	0.025	0.2	0.2	0.003	0.2	0.2	0.03	0.03
EP-63	5/8/98	0.022		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.22	0.22	0.032	0.032
EP-63	8/10/98	0.02		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.21	0.21	0.036	0.036
EP-63	11/9/98	0.023		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.21	0.21	0.039	0.039
EP-63	2/10/99	0.027		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.21	0.21	0.039	0.039
EP-63	5/6/99	0.02		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.16	0.16	0.028	0.028
EP-63	5/6/99	0.018		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.17	0.17	0.038	0.038
EP-63	8/3/99	0.021	0.022	0.005	0.005	0.012	0.01	0.025	0.025	0.1	0.55	0.003	0.23	0.23	0.033	0.041
EP-63	10/27/99		0.024		0.005		0.01		0.035		0.54	0.004	0.14	0.14	0.02	0.02
EP-63	1/28/00		0.022		0.005		0.01		0.025		0.1	0.003	0.12	0.12	0.02	0.02
EP-63	5/3/00		0.025		0.005		0.021		0.025		0.17	0.007	0.14	0.14	0.027	0.027
EP-63	5/3/00		0.026		0.005		0.02		0.025		0.33	0.004	0.14	0.14	0.024	0.024
EP-63	8/10/00		0.021		0.005		0.022		0.025		0.89	0.01	0.2	0.2	0.021	0.021
EP-63	10/11/00		0.028		0.005		0.027		0.026		1	0.013	0.17	0.17	0.039	0.039
EP-63	2/21/01		0.041		0.005		0.037		0.031		2.5	0.027	0.077	0.077	0.15	0.15
EP-63	5/15/01		0.03		0.005		0.15		0.037		3.6	0.034	0.099	0.099	0.091	0.091
EP-63	5/15/01		0.028		0.005		0.16		0.035		4.1	0.036	0.094	0.094	0.094	0.094
EP-63	7/27/01	0.041	0.047	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.18	0.18	0.032	0.03
EP-63	11/14/01	0.043	0.039	0.005	0.005	0.01	0.032	0.025	0.031	0.1	0.53	0.003	0.066	0.066	0.02	0.02
EP-63	2/13/02	0.037	0.037	0.005	0.005	0.01	0.081	0.025	0.025	0.1	0.53	0.003	0.067	0.066	0.037	0.033
EP-63	5/9/02	0.016	0.04	0.005	0.005	0.01	0.073	0.025	0.041	0.1	0.86	0.003	0.071	0.071	0.02	0.02
EP-63	8/13/02	0.032	0.032	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.2	0.003	0.079	0.076	0.057	0.067
EP-64	8/9/97	0.025		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.5	0.5	0.023	0.023
EP-64	11/5/97	0.048		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.7	0.7	0.024	0.024
EP-64	2/5/98	0.043		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.65	0.65	0.024	0.024
EP-64	5/8/98	0.041		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.61	0.61	0.023	0.023
EP-64	8/10/98	0.04		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.6	0.6	0.023	0.023
EP-64	11/9/98	0.045		0.014	0.014	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.58	0.58	0.023	0.023
EP-64	2/10/99	0.039		0.011	0.011	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.48	0.48	0.024	0.024
EP-64	5/6/99	0.038		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.49	0.49	0.043	0.043
EP-64	8/3/99	0.036	0.038	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.51	0.003	0.51	0.48	0.026	0.027
EP-64	10/27/99		0.049		0.005		0.01		0.01		0.39	0.004	0.39	0.39	0.02	0.02
EP-64	1/28/00		0.043		0.005		0.01		0.025		0.76	0.004	0.32	0.32	0.02	0.02
EP-64	5/3/00		0.052		0.005		0.01		0.025		0.14	0.003	0.5	0.5	0.02	0.02
EP-64	8/10/00		0.049		0.005		0.01		0.025		0.17	0.003	0.5	0.5	0.02	0.02
EP-64	10/31/00		0.051		0.005		0.01		0.025		0.19	0.003	0.53	0.53	0.052	0.052
EP-64	2/21/01		0.096		0.009		0.019		0.025		1.5	0.004	0.49	0.49	0.088	0.088
EP-64	5/15/01		0.057		0.005		0.01		0.025		0.17	0.003	0.54	0.54	0.062	0.062
EP-64	7/27/01	0.1	0.11	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.5	0.46	0.043	0.049
EP-64	11/14/01	0.11	0.13	0.005	0.005	0.01	0.01	0.025	0.036	0.1	0.23	0.003	0.44	0.47	0.02	0.02
EP-64	2/13/02	0.086	0.098	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.71	0.003	0.46	0.46	0.02	0.026
EP-64	5/9/02	0.11	0.1	0.005	0.005	0.01	0.01	0.025	0.071	0.1	0.18	0.003	0.43	0.41	0.02	0.02
EP-64	8/13/02	0.12	0.13	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.45	0.51	0.1	0.13
EP-64	11/12/02	0.077	0.08	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.14	0.003	0.46	0.45	0.031	0.029
EP-65	8/15/97	0.005		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.33	0.33	0.02	0.02
EP-65	11/14/97	0.012		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.29	0.29	0.02	0.02
EP-65	2/18/98	0.009		0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.2	0.2	0.02	0.02

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l		
EP-65	5/18/98	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.16		0.02	U		
EP-65	8/24/98	0.006		0.005	U	0.01	U	0.025	U	0.27		0.003	U	0.14		0.02	U		
EP-65	11/16/98	0.007		0.005	U	0.01	U	0.025	U	0.12		0.003	U	0.15		0.02	U		
EP-65	2/24/99	0.007		0.005	U	0.01	U	0.025	U	0.14		0.003	U	0.17		0.02	U		
EP-65	2/24/99	0.008		0.005	U	0.01	U	0.025	U	0.12		0.003	U	0.18		0.02	U		
EP-65	5/13/99	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.13		0.02	U		
EP-65	8/10/99	0.006	0.012	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.17	0.18	0.021	U		
EP-65	8/10/99	0.005	0.012	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.17	0.19	0.02	U		
EP-65	11/3/99		0.033		0.005		0.01		0.026		0.67		0.007		0.24		0.02	U	
EP-65	2/7/00		0.02		0.005		0.01		0.025		0.17		0.003		0.2		0.02	U	
EP-65	2/7/00		0.018		0.005		0.01		0.025		0.23		0.003		0.2		0.02	U	
EP-65	5/8/00		0.012		0.005		0.01		0.025		0.12		0.003		0.22		0.02	U	
EP-65	8/15/00		0.006	U	0.005		0.01		0.025		0.5		0.003		0.18		0.02	U	
EP-65	11/13/00		0.005	U	0.005		0.01		0.025		0.1		0.003		0.22		0.02	U	
EP-65	2/23/01		0.006		0.005		0.01		0.025		0.21	U	0.003	U	0.21		0.038	U	
EP-65	5/16/01		0.059		0.005		0.01		0.025		0.1	U	0.003	U	0.22		0.02	U	
EP-65	7/30/01	0.006	0.005	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.26	0.25	0.02	U
EP-65	7/30/01	0.005	0.005	0.005	U	0.01	U	0.01	U	0.025	U	0.1	U	0.003	U	0.26	0.25	0.021	U
EP-65	11/15/01	0.008	0.006	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.23	0.25	0.02	U
EP-65	2/21/02	0.018	0.016	0.005	U	0.005	U	0.01	U	0.025	U	0.14	U	0.003	U	0.28	0.25	0.02	U
EP-65	5/14/02	0.007	0.008	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.24	0.23	0.02	U
EP-65	8/21/02	0.007	0.009	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.26	0.27	0.02	U
EP-65	11/25/02																		
EP-66	8/8/97	13		0.005	U	0.011	U	0.025	U	0.1	U	0.003	U	0.26		0.046	U		
EP-66	11/5/97	11		0.005	U	0.01	U	0.025	U	0.15		0.003	U	0.26		0.017	U		
EP-66	2/3/98	9.7		0.005	U	0.01	U	0.032	U	0.1	U	0.003	U	0.26		0.024	U		
EP-66	5/8/98	10		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.25		0.047	U		
EP-66	8/10/98	11		0.007		0.01	U	0.025	U	0.1	U	0.003	U	0.3		0.092	U		
EP-66	11/9/98	8.6		0.078		0.01	U	0.066	U	0.1	U	0.003	U	0.24		0.07	U		
EP-66	2/10/99	9.1		0.034		0.01	U	0.025	U	0.1	U	0.003	U	0.2		0.27	U		
EP-66	5/6/99	9.9		0.011		0.01	U	0.025	U	0.1	U	0.003	U	0.2		0.074	U		
EP-66	8/4/99	10	9.6	0.005	U	0.012	U	0.01	U	0.025	U	0.1	U	0.003	U	0.28	0.28	0.02	U
EP-66	10/27/99		6.1		0.005	U	0.01	U	0.025	U	0.82	U	0.004	U	0.22	0.22	0.03	U	
EP-66	1/28/00		10		0.005	U	0.01	U	0.025	U	0.8		0.003		0.21		0.02	U	
EP-66	5/3/00		8.8		0.005	U	0.01	U	0.025	U	0.3		0.003	U	0.28		0.022	U	
EP-66	8/10/00		8.3		0.005	U	0.01	U	0.025	U	0.17		0.006	U	0.29		0.021	U	
EP-66	10/31/00		8.1		0.005	U	0.01	U	0.026		0.54	U	0.005		0.31		0.065	U	
EP-66	2/21/01		7.5		0.011		0.01	U	0.025	U	0.49		0.003		0.26		0.093	U	
EP-66	5/15/01		8.8		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.29		0.024	U	
EP-66	7/27/01	8.6	8.4	0.005	U	0.005	U	0.01	U	0.026	0.029	0.1	U	0.1	0.31	0.3	0.042	0.051	U
EP-66	11/14/01	7.5	7.4	0.005	U	0.005	U	0.01	U	0.025	0.039	0.1	U	0.26	0.3	0.021	0.023	0.01	U
EP-66	2/13/02	7.8	8.1	0.005	U	0.005	U	0.01	U	0.025	0.16	0.003	U	0.003	U	0.21	0.22	0.02	U
EP-66	5/9/02	5.2	6.2	0.005	U	0.005	U	0.01	U	0.034	0.1	0.003	U	0.007	0.19	0.19	0.02	0.022	U
EP-66	8/13/02	10	11	0.005	U	0.005	U	0.01	U	0.025	0.026	0.1	U	0.003	U	0.35	0.39	0.047	0.071
EP-66	11/12/02	7.3	7.9	0.005	U	0.005	U	0.01	U	0.025	0.025	0.1	U	0.003	U	0.24	0.26	0.033	0.035
EP-67	8/12/97	0.015		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.14		0.025			
EP-67	11/7/97	0.042		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.15		0.038			
EP-67	2/11/98	0.015	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.13		0.02			
P-67	2/11/98	0.015	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.13		0.02	U		
P-67	5/12/98	0.015		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.14		0.028			

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l	
EP-67	8/13/98	0.013		0.003	U	0.01	U	0.025	U	0.1	U	0.003	U	0.15		0.031		
EP-67	11/10/98	0.021		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.12		0.08		
EP-67	2/10/99	0.016		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.13		0.043		
EP-67	5/7/99	0.02		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.11		0.031	U	
EP-67	8/5/99	0.02	0.023	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.12	0.1	0.037	0.023	
EP-67	10/28/99		0.017		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.12		0.02	U
EP-67	1/24/00		0.009		0.005	U	0.01	U	0.025	U	0.12		0.011	U	0.1		0.02	U
EP-67	4/24/00		0.02		0.005	U	0.01	U	0.025	U	0.12		0.009	U	0.11		0.051	
EP-67	8/2/00		0.01		0.005	U	0.01	U	0.025	U	0.1	U	0.005	U	0.094		0.02	U
EP-67	8/2/00		0.011		0.005	U	0.01	U	0.025	U	0.1	U	0.009	U	0.097		0.02	U
EP-67	10/31/00		0.01		0.005	U	0.01	U	0.025	U	0.21	U	0.003	U	0.1		0.057	U
EP-67	2/8/01		0.014		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.11		0.02	U
EP-67	2/8/01		0.015		0.005	U	0.01	U	0.025	U	0.11	U	0.004	U	0.11		0.039	U
EP-67	5/7/01		0.018		0.005	U	0.01	U	0.025	U	0.11	U	0.003	U	0.1		0.059	U
EP-67	7/17/01	0.026	0.028	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.096	0.09	0.02	0.025	
EP-67	10/30/01	0.022	0.02	0.005	U, U, U	0.005	U	0.01	U	0.01	U	0.003	U	0.085	0.079	0.02	0.03	
EP-67	2/6/02	0.023	0.022	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.09	0.095	0.02	0.02	
EP-67	4/30/02	0.034	0.034	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.077	0.068	0.02	0.02	
EP-67	8/6/02	0.021	0.024	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.077	0.077	0.025	0.022	
EP-67	8/6/02	0.02	0.025	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.077	0.079	0.025	0.023	
EP-67	11/11/02																	
EP-68	8/14/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.31		0.024		
EP-68	8/14/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.33		0.02	U	
EP-68	11/11/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.32		0.023		
EP-68	2/11/98	0.005	U, U, U	0.005	U	0.015	U	0.025	U	0.1	U	0.003	U	0.28		0.02	U	
EP-68	5/13/98	0.009		0.005	U	0.012	U	0.025	U	0.1	U	0.003	U	0.33		0.02		
EP-68	5/13/98	0.01		0.005	U	0.012	U	0.025	U	0.1	U	0.003	U	0.34		0.02	U	
EP-68	8/13/98	0.007		0.005	U	0.016	U	0.025	U	0.1	U	0.003	U	0.25		0.034	U	
EP-68	11/9/98	0.009		0.005	U	0.012	U	0.025	U	0.1	U, U, U	0.003	U	0.26		0.071	U	
EP-68	2/18/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.16		0.062	U	
EP-68	5/10/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.17		0.03	U	
EP-68	8/5/99	0.005	0.005	0.005	U	0.005	U	0.013	0.01	0.025	U	0.003	U	0.25	0.25	0.02	0.02	
EP-68	10/28/99		0.005	U	0.005	U	0.01	U	0.025	U	0.26		0.003	U	0.29		0.02	U
EP-68	1/25/00		0.005	U	0.005	U	0.014	U	0.025	U	2.5	U	0.01	U, U, U	0.27		0.02	U
EP-68	1/25/00		0.005		0.005	U	0.016	U	0.025	U	4.6	U	0.01	U, U, U	0.26		0.02	U
EP-68	4/24/00		0.005		0.005	U	0.012	U	0.025	U	0.25		0.003	U	0.27		0.025	U
EP-68	4/24/00		0.005		0.005	U	0.011	U	0.025	U	0.29		0.003	U	0.37		0.029	U
EP-68	8/2/00		0.005	U	0.005	U	0.01	U	0.025	U	0.47		0.005	U	0.23		0.02	U
EP-68	10/31/00		0.005	U	0.005	U	0.011	U	0.025	U	0.51	U	0.003	U	0.21		0.057	U, U, U
EP-68	2/9/01		0.008		0.005	U	0.01	U	0.025	U	0.72		0.004	U	0.33	U	0.054	U
EP-68	5/7/01		0.006		0.005	U	0.01	U	0.025	U	0.49		0.003	U	0.25		0.06	U
EP-68	7/17/01	0.011	0.013	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.28	0.28	0.02	0.02	
EP-68	10/30/01	0.013	0.012	0.005	U, U, U	0.005	U	0.01	U	0.01	U	0.003	U	0.24	0.25	0.02	0.023	
EP-68	2/6/02	0.027	0.033	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.32	0.33	0.02	0.02	
EP-68	5/1/02	0.013	0.014	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.21	0.22	0.02	0.02	
EP-68	8/6/02	0.007	0.007	0.005	U	0.005	U	0.01	U	0.01	U	0.003	U	0.27	0.27	0.02	0.02	
EP-68	11/11/02																	
EP-7	8/6/97	0.064		0.005	U	0.01	U	0.025	U	1	U	0.003	U	0.005	U	0.02	U	
EP-7	11/4/97	0.084		0.005	U	0.01	U	0.025	U	1.2	U	0.003	U	0.005	U	0.02	U	
EP-7	2/4/98	0.075		0.005	U	0.01	U	0.025	U, U, U	1.7	U	0.003	U	0.005	U	0.02	U, U, U	

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-7	5/5/98	0.056		0.005	U	0.01	U	0.025	U	1.5		0.003	U	0.005	U	0.028	U
EP-7	8/5/98	0.065		0.005	U	0.01	U	0.025	U	1.4		0.003	U	0.005	U	0.028	U
EP-7	11/3/98	0.049	JA	0.005	U	0.01	U	0.025	U	0.74		0.003	U	0.005	U	0.02	U
EP-7	2/1/99	0.044	JA	0.005	U	0.01	U	0.025	U	0.98		0.003	U	0.005	U	0.02	U
EP-7	2/1/99	0.056	JA	0.005	U	0.01	U	0.025	U	0.85		0.003	U	0.005	U	0.02	U
EP-7	5/5/99	0.065		0.005	U	0.01	U	0.025	U	1.4		0.003	U	0.005	U	0.025	U
EP-7	8/2/99	0.064		0.005	U	0.01	U	0.025	U	1.5		0.003	U	0.005	U	0.02	U
EP-7	10/25/99		0.12	0.005	U	0.01	U	0.025	U	5.8	JA	0.003	U	0.005	U	0.02	U
EP-7	10/25/99		0.12	0.005	U	0.01	U	0.025	U	5.5	JA	0.003	U	0.005	U	0.02	U
EP-7	1/29/00	0.097		0.005	U	0.01	U	0.025	U	3.5		0.003	U	0.005	U	0.02	U
EP-7	1/29/00	0.095		0.005	U	0.01	U	0.025	U	3		0.003	U	0.005	U	0.02	U
EP-7	4/24/00	0.068		0.005	U	0.01	U	0.025	U	1.5		0.003	U	0.005	U	0.02	U
EP-7	8/1/00	0.069		0.005	U	0.01	U	0.025	U	1.3		0.006	U	0.005	U	0.02	U
EP-7	8/1/00	0.077		0.005	U	0.01	U	0.025	U	1.4		0.005	U	0.005	U	0.02	U
EP-7	10/30/00	0.077		0.005	U	0.01	U	0.025	U	1.3	JA	0.003	U	0.005	U	0.025	U
EP-7	2/5/01	0.056		0.005	U	0.01	U	0.025	U	1.5		0.006	U	0.005	U	0.049	JA
EP-7	2/5/01	0.066		0.005	U	0.01	U	0.025	U	1.0		0.003	U	0.005	U	0.02	U
EP-7	5/4/01	0.075		0.005	U	0.01	U	0.025	U	2.5		0.003	U	0.005	U	0.029	U
EP-7	5/4/01	0.068		0.005	U	0.01	U	0.025	U	2.4		0.003	U	0.005	U	0.026	U
EP-7	7/16/01	0.058		0.005	U	0.01	U	0.025	U	0.98		0.003	U	0.005	U	0.02	U
EP-7	7/16/01	0.049		0.005	U	0.01	U	0.025	U	0.55		0.003	U	0.005	U	0.02	U
EP-7	10/29/01	0.052		0.005	U	0.01	U	0.025	U	0.6		0.003	U	0.005	U	0.02	U
EP-7	10/29/01	0.053		0.005	U	0.01	U	0.025	U	0.6		0.003	U	0.005	U	0.02	U
EP-7	2/6/02	0.053		0.005	U	0.01	U	0.025	U	0.74		0.003	U	0.005	U	0.02	U
EP-7	2/6/02	0.052	JA	0.005	U	0.01	U	0.025	U	0.72	JA	0.003	U	0.005	U	0.02	U
EP-7	4/29/02	0.061		0.005	U	0.01	U	0.025	U	1.2		0.003	U	0.005	U	0.02	U
EP-7	8/5/02	0.087		0.005	U	0.01	U	0.025	U	1.3		0.003	U	0.005	U	0.02	U
EP-7	8/5/02	0.077		0.005	U	0.01	U	0.025	U	1.1		0.003	U	0.005	U	0.02	U
EP-7	11/4/02	0.051		0.005	U	0.01	U	0.025	U	0.58		0.003	U	0.005	U	0.025	U
EP-70	8/12/97																
EP-70	8/26/97	2		0.01		0.01	U	0.025	U	0.1	U	0.003	U	0.24		0.15	U
EP-70	8/26/97	1.9		0.01		0.01	U	0.025	U	0.1	U	0.003	U	0.26		0.13	U
EP-70	11/7/97	1.7		0.013		0.01	U	0.025	U	0.1	U	0.003	U	0.22		0.18	U
EP-70	2/11/98	1.4		0.014		0.01	U	0.025	U	0.1	U	0.003	U	0.22		0.2	U
EP-70	5/12/98	1.2		0.012		0.01	U	0.025	U	0.1	U	0.003	U	0.21		0.19	U
EP-70	8/13/98	1.2		0.013		0.01	U	0.025	U	0.1	U	0.003	U	0.22		0.21	U
EP-70	11/10/98	1		0.015		0.01	U	0.025	U	0.1	U	0.003	U	0.21		0.23	U
EP-70	11/10/98	1		0.014		0.01	U	0.025	U	0.1	U	0.003	U	0.2		0.23	U
EP-70	2/10/99	0.83		0.014		0.01	U	0.025	U	0.1	U	0.003	U	0.18		0.24	U
EP-70	5/7/99	0.83		0.009		0.01	U	0.025	U	0.1	U	0.003	U	0.19		0.14	JA
EP-70	8/5/99	0.72	0.75	0.009	0.009	0.01	U	0.025	U	0.1	U	0.003	U	0.18	0.19	0.16	JA
EP-70	10/28/99	0.8		0.009		0.01	U	0.025	U	0.1	U	0.003	U	0.22		0.14	JA
EP-70	1/24/00	0.63		0.007		0.01	U	0.025	U	0.1	U	0.003	U	0.19		0.12	U
EP-70	1/24/00	0.64		0.008		0.01	U	0.025	U	0.1	U	0.009	U	0.19		0.12	U
EP-70	4/25/00	0.59		0.007		0.01	U	0.025	U	0.12		0.003	U	0.2		0.12	U
EP-70	8/3/00	0.56		0.006		0.01	U	0.025	U	0.1	U	0.005	U	0.19		0.12	U
EP-70	11/1/00	0.57		0.006		0.01	U	0.025	U	0.1	U	0.003	U	0.21		0.15	U
EP-70	11/1/00	0.58		0.006		0.01	U	0.025	U	0.1	U	0.003	U	0.22		0.15	U
EP-70	2/9/01	0.56		0.005		0.01	U	0.025	U	0.1	U	0.003	U	0.22	JA	0.16	U
EP-70	5/7/01	0.6		0.005		0.01	U	0.025	U	0.1	U	0.003	U	0.21		0.17	U

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV R1
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-70	7/18/01	0.73	0.73	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.12	0.003	0.003	0.21	0.21	0.11	0.097
EP-70	10/31/01	0.84	0.84	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.21	0.19	0.089	0.089
EP-70	10/31/01	0.84	0.79	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.22	0.2	0.087	0.09
EP-70	2/7/02	0.88	0.84	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.22	0.21	0.085	0.078
EP-70	5/1/02	0.88	0.93	0.005	0.005	0.01	0.01	0.025	0.035	0.1	0.1	0.003	0.003	0.17	0.17	0.098	0.12
EP-70	8/7/02	0.9	0.96	0.006	0.006	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.21	0.22	0.1	0.1
EP-70	11/11/02																
EP-71	8/12/97	0.16		0.005		0.01		0.025		0.1		0.003		0.28		0.02	
EP-71	11/7/97	0.19		0.005		0.01		0.025		0.1		0.003		0.32		0.027	
EP-71	2/11/98	0.14		0.005		0.01		0.025		0.1		0.012		0.26		0.027	
EP-71	5/12/98	0.13		0.005		0.01		0.025		0.1		0.003		0.27		0.023	
EP-71	8/13/98	0.14		0.005		0.01		0.025		0.1		0.003		0.29		0.025	
EP-71	11/10/98	0.13		0.006		0.01		0.025		0.1		0.003		0.23		0.081	
EP-71	2/10/99	0.12		0.005		0.01		0.025		0.1		0.003		0.21		0.025	
EP-71	8/5/99	0.13	0.12	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.24	0.24	0.126	0.02
EP-71	10/28/99		0.12		0.005		0.01		0.025		0.1		0.003		0.23		0.02
EP-71	1/24/00		0.11		0.005		0.01		0.025		0.1		0.008		0.2		0.02
EP-71	4/24/00		0.11		0.005		0.01		0.025		0.1		0.003		0.22		0.026
EP-71	8/3/00		0.11		0.005		0.01		0.025		0.1		0.005		0.21		0.02
EP-71	8/3/00		0.11		0.005		0.01		0.025		0.1		0.005		0.21		0.02
EP-71	11/1/00		0.11		0.005		0.01		0.025		0.1		0.003		0.23		0.035
EP-71	2/9/01		0.093		0.005		0.01		0.025		0.1		0.003		0.19		0.022
EP-71	2/9/01		0.11		0.005		0.01		0.025		0.1		0.003		0.24		0.032
EP-71	5/7/01		0.11		0.005		0.01		0.025		0.14		0.003		0.24		0.044
EP-71	7/18/01	0.11	0.12	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.24	0.26	0.02	0.02
EP-71	7/18/01	0.12	0.12	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.25	0.25	0.02	0.021
EP-71	10/31/01	0.12	0.11	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.23	0.21	0.02	0.02
EP-71	2/7/02	0.13	0.13	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.24	0.26	0.02	0.02
EP-71	5/1/02	0.13	0.12	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.22	0.18	0.02	0.028
EP-71	5/1/02	0.13	0.12	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.17	0.18	0.02	0.02
EP-71	8/5/02	0.14	0.13	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.22	0.23	0.02	0.02
EP-71	11/11/02																
EP-72	8/12/97	0.48		0.21		0.01		0.025		0.1		0.003		0.51		0.45	
EP-72	11/7/97	0.49		0.2		0.01		0.025		0.1		0.003		0.38		0.7	
EP-72	2/11/98	0.5		0.21		0.01		0.025		0.1		0.003		0.36		0.53	
EP-72	5/13/98	0.5		0.22		0.01		0.025		0.1		0.003		0.19		0.4	
EP-72	8/13/98	0.49		0.2		0.01		0.025		0.1		0.003		0.43		0.54	
EP-72	11/10/98	0.43		0.2		0.01		0.025		0.1		0.003		0.42		0.47	
EP-72	1/24/00		0.065		0.005		0.01		0.025		0.86		0.011		1.8		0.051
EP-72	4/25/00		0.069		0.005		0.01		0.025		0.28		0.003		6		0.056
EP-72	8/3/00		0.05		0.005		0.01		0.025		0.19		0.005		6		0.044
EP-72	11/1/00		0.14		0.005		0.01		0.025		0.22		0.007		5.2		0.008
EP-72	2/9/01		0.14		0.006		0.01		0.025		0.12		0.003		4.1		0.11
EP-72	5/7/01		0.093		0.005		0.01		0.034		0.14		0.003		9.4		0.13
EP-72	7/18/01	0.094	0.17	0.005	0.005	0.01	0.01	0.041	0.035	0.1	0.1	0.003	0.003	16	15	0.078	0.071
EP-72	10/31/01	0.27	0.23	0.005	0.005	0.01	0.01	0.027	0.025	0.1	0.12	0.003	0.003	13	13	0.064	0.066
EP-72	2/7/02	0.21	0.21	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	7.3	7.1	0.03	0.037
EP-72	5/1/02	0.26	0.24	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	7.9	7.2	0.042	0.056
EP-72	8/7/02	0.24	0.23	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	8.7	10	0.039	0.059
EP-72	11/11/02																

Appendix H

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-73	8/12/97	0.031		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	1.1		0.01	
EP-73	11/13/97	0.033		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	1.1		0.013	
EP-73	2/12/98	0.023	J4	0.005	U	0.01	U	0.025	U	0.1	U	0.004		1.2		0.022	
EP-73	5/11/98	0.11		0.01		0.01	U	0.025	U	0.1	U	0.003	U	1.3		0.15	
EP-73	8/17/98	0.031		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	1.2		0.043	
EP-73	11/5/98	0.039	J4	0.012		0.01	U	0.025	U	0.1	U,0.04	0.003	U	1.1		0.15	
EP-73	2/9/99	0.038		0.005		0.01	U	0.025	U	0.1	U,0.04	0.003	U	0.93		0.067	
EP-73	5/7/99	0.037		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	1		0.04	U
EP-73	5/7/99	0.034		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	1		0.038	U
EP-73	8/5/99	0.027	0.026	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	1.1	0.96	0.029	0.024
EP-73	10/29/99		0.061		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	1.1		0.054
EP-73	1/26/00	0.019			0.005	U	0.01	U	0.025	U	0.28		0.003	U	0.91		0.02
EP-73	4/28/00	0.1			0.005	U	0.01	U	0.025	U	0.1	J4	0.003	U	0.95		0.14
EP-73	8/7/00	0.027			0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.84		0.023
EP-73	11/7/00	0.023			0.005	U	0.01	U,0.04	0.025	U	0.38	J4	0.003	U	0.87		0.028
EP-73	2/16/01	0.03			0.005	U	0.01	U	0.025	U	0.6		0.003	U	1		0.06
EP-73	5/9/01	0.031			0.005	U	0.01	U	0.025	U	0.5		0.003	U	0.93		0.08
EP-73	7/20/01	0.041	0.054	0.005	U	0.005	U	0.025	U	0.1	U	0.003	U	0.89	0.9	0.031	0.034
EP-73	7/20/01	0.041	0.055	0.005	U	0.005	U	0.025	U	0.1	U	0.003	U	0.89	0.9	0.031	0.035
EP-73	11/5/01	0.051	0.06	0.005	U	0.005	U	0.025	U	0.1	U	0.003	U	0.91	0.89	0.027	0.026
EP-73	2/12/02	0.041	0.04	0.005	U	0.005	U	0.025	U	0.1	U	0.003	U	0.81	0.81	0.037	0.041
EP-73	5/7/02	0.061	0.056	0.005	U	0.005	U	0.025	U	0.1	U	0.003	U	0.75	0.74	0.03	0.032
EP-73	8/12/02	0.026	0.022	0.005	U	0.005	U	0.025	U	0.1	U	0.003	U	0.81	0.9	0.035	0.044
EP-73	8/12/02	0.029	0.025	0.005	U	0.005	U	0.025	U	0.1	U	0.003	U	0.84	0.92	0.037	0.045
EP-73	11/11/02																
EP-74	8/13/97	0.12		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.44		0.02	
EP-75	8/12/97	12		0.036		0.01	U	0.054		0.1	U	0.003		3.3		0.15	
EP-75	11/13/97	21		0.019		0.01	U	0.051		0.1	U	0.003		4		0.16	
EP-75	2/6/98	18		0.022		0.01	U	0.086		0.3	J4	0.001	U	4.49		0.14	
EP-75	5/11/98	17		0.041		0.01	U	0.1		0.2	U	0.003		5.1		0.15	
EP-75	8/17/98	18		0.005	U	0.01	U	0.042		0.1	U	0.003	U	3.7		0.14	
EP-75	11/5/98	18	J4	0.025		0.01	U	0.058		0.13	J4	0.003		5.4		0.14	
EP-75	2/22/99	17		0.01		0.01	U	0.061		0.1	U	0.003		3.8		0.21	
EP-75	5/10/99	18		0.009		0.01	U	0.075		1.2		0.003	U	4		0.002	U
EP-75	8/6/99	17	16	0.005	0.005	0.01	U	0.066	0.066	0.1	U	0.003	0.01	3.8	3.6	0.11	0.094
EP-75	1/26/00	14			0.005	U	0.01	0.051		1.5		0.023		3.3		0.084	
EP-75	4/28/00	16			0.007		0.01	0.069		0.87	J4	0.006		4.8		0.15	J2
EP-75	8/7/00	11			0.005		0.01	0.049		0.47		0.006		3.4		0.1	
EP-75	11/7/00	9.4			0.009		0.01	0.062		0.63	J4	0.018		2.7		0.1	
EP-75	2/14/01		13		0.007		0.01	0.025		0.45		0.003		4.4		0.13	
EP-75	5/9/01		14		0.006		0.01	0.028		0.49		0.003		4.7		0.15	
EP-75	7/20/01	15	15	0.006	0.006	0.01	U	0.062	0.062	0.1	U	0.003	U	4.3	4.2	0.077	0.086
EP-75	11/5/01	16	16	0.005	0.005	0.01	U	0.051	0.05	0.1	U	0.003	U	4.3	3.9	0.078	0.073
EP-75	2/12/02	17		0.005	U	0.006	U	0.04	0.044	0.1	U	0.003	U	4.2	4.3	0.091	0.098
EP-75	2/12/02	17	16	0.005	U	0.007	U	0.038	0.074	0.1	U	0.003	U	4.3	4	0.088	0.1
EP-75	5/7/02	18	18	0.005	U	0.005	U	0.053	0.053	0.1	U	0.003	U	3.6	3.5	0.11	0.099
EP-75	8/9/02	15	17	0.005	0.007	0.01	U	0.027	0.04	0.1	U	0.003	U	3.6	4.8	0.091	0.12
EP-75	8/9/02	15	18	0.006	0.007	0.01	U	0.026	0.036	0.1	U	0.003	U	3.6	5.2	0.083	0.12
EP-75	11/6/02	14	17	0.016	0.017	0.01	U	0.025	0.04	0.1	U	0.003	U	3.5	3.8	0.091	0.091
EP-76	8/12/97	0.48		0.005	U	0.01	U	0.025	U	0.1	U	0.007		0.14		0.16	

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-76	11/11/97	0.48		0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.17	0.078
EP-76	2/6/98	0.54		0.005	U	0.01	U	0.025	U	0.1	U	0.005	U	0.13	0.07
EP-76	5/11/98	0.41		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.14	0.085
EP-76	8/17/98	0.42		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.16	0.073
EP-76	11/5/98	2.3	H	0.01		0.01	U	0.05		0.1	U	0.023		0.51	0.15
EP-76	2/22/99	0.77		0.005	U	0.01	U	0.025	U	0.1	U	0.005		0.16	0.054
EP-76	5/10/99	1.7		0.005	U	0.01	U	0.025	U	0.56		0.004		0.76	0.057
EP-76	1/26/00		1.3		0.005	U	0.01	U	0.025	U	0.1	U	0.011	0.18	0.052
EP-76	4/28/00		0.92		0.005	U	0.01	U	0.025	U	0.1	U	0.01	0.15	0.077
EP-76	8/7/00		1.1		0.005	U	0.01	U	0.025	U	0.1	U	0.007	0.15	0.084
EP-76	11/7/00		1.4		0.005	U	0.01	U	0.025	U	0.17	U	0.01	0.21	0.055
EP-76	2/14/01		1.5		0.005	U	0.01	U	0.025	U	0.18		0.014	0.22	0.12
EP-76	5/9/01		1.3		0.005	U	0.01	U	0.025	U	0.1	U	0.006	0.19	0.11
EP-76	7/20/01	1.1	1	0.005	U	0.005	U	0.025	U	0.1	U	0.01	U	0.17	0.054
EP-76	11/5/01	0.94	0.92	0.005	U	0.005	U	0.025	U	0.1	U	0.13	U	0.14	0.087
EP-76	11/5/01	0.92	0.94	0.005	U	0.005	U	0.025	U	0.1	U	0.12	U	0.14	0.082
EP-76	2/12/02	0.81	0.76	0.005	U	0.005	U	0.025	U	0.1	U	0.1	U	0.1	0.054
EP-76	5/2/02	0.54	0.51	0.005	U	0.005	U	0.025	U	0.1	U	0.1	U	0.003	0.088
EP-76	5/7/02	0.53	0.51	0.005	U	0.005	U	0.025	U	0.1	U	0.1	U	0.003	0.087
EP-76	8/9/02	0.83	0.87	0.005	U	0.005	U	0.025	U	0.1	U	0.1	U	0.003	0.087
EP-76	11/6/02	0.36	0.37	0.005	U	0.005	U	0.025	U	0.1	U	0.1	U	0.003	0.087
EP-77	8/12/97	5.6		0.012		0.01	U	0.025	U	0.1	U	0.006		0.014	0.025
EP-77	11/13/97	6		0.013		0.01	U	0.025	U	0.1	U	0.005		0.014	0.025
EP-77	11/13/97	5.7		0.012		0.01	U	0.025	U	0.1	U	0.005		0.014	0.025
EP-77	2/12/98	5.7		0.015		0.01	U	0.025	U	0.1	U	0.005		0.014	0.025
EP-77	5/13/98	5.4		0.016		0.01	U	0.025	U	0.1	U	0.005		0.014	0.025
EP-77	8/17/98	6.1		0.018		0.01	U	0.025	U	0.1	U	0.005		0.014	0.025
EP-77	11/11/98	6.8		0.02		0.01	U	0.025	U	0.1	U	0.005		0.014	0.025
EP-77	2/11/99	6.2		0.016		0.01	U	0.025	U	0.1	U	0.005		0.014	0.025
EP-77	5/7/99	7.6		0.041		0.01	U	0.025	U	0.1	U	0.005		0.014	0.025
EP-77	8/5/99	7.2	6	0.01	0.01	0.01	U	0.025	U	0.1	U	0.005	0.011	0.025	0.033
EP-77	10/29/99	5.8			0.008		0.01	U	0.025	U	0.1	U	0.015	0.022	0.03
EP-77	10/29/99	6			0.008		0.01	U	0.025	U	0.1	U	0.012	0.022	0.027
EP-77	1/25/00		7.7		0.012		0.01	U	0.025	U	0.51	U	0.012	0.023	0.02
EP-77	4/28/00		6.5		0.009		0.01	U	0.027	U	4.5	U	0.01	0.031	0.11
EP-77	4/28/00		6.6		0.009		0.01	U	0.025	U	1.4	U	0.008	0.028	0.081
EP-77	8/4/00		6.4		0.007		0.01	U	0.025	U	3.7	U	0.008	0.015	0.022
EP-77	11/3/00		6.2		0.008		0.01	U	0.025	U	0.46	U	0.003	0.021	0.025
EP-77	2/12/01		3.3		0.005	U	0.01	U	0.025	U	3.8	U	0.007	0.011	0.05
EP-77	5/9/01		1.5		0.005	U	0.01	U	0.025	U	6.6	U	0.008	0.013	0.005
EP-77	5/9/01		1.5		0.005	U	0.01	U	0.025	U	8	U	0.008	0.01	0.059
EP-77	7/19/01	5.4	5.3	0.005	U	0.005	U	0.025	U	0.1	U	0.74	U	0.022	0.018
EP-77	11/1/01	8.2	7.8	0.005	U	0.005	U	0.025	U	0.1	U	0.25	U	0.015	0.01
EP-77	2/8/02	5.4	5.5	0.005	U	0.005	U	0.025	U	0.1	U	1	U	0.003	0.02
EP-77	5/2/02	5.4	5.4	0.032	0.03	0.01	U	0.025	U	0.1	U	1.3	U	0.003	0.02
EP-77	8/8/02	4.6	4.6	0.005	U	0.005	U	0.025	U	0.1	U	2.1	U	0.003	0.018
EP-77	11/6/02	4.5	4.5	0.019	0.027	0.01	U	0.025	U	0.031	U	1.3	U	0.003	0.017
EP-78	8/13/97	6.3		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	0.035
EP-78	11/18/97	5.6		0.008	U	0.01	U	0.025	U	0.1	U		U	0.003	0.02
EP-78	11/18/97	5.6		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	0.02

Appendix H

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV R1
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-78	2/5/98	5.9		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.22		0.02	U
EP-78	5/14/98	5.6		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.21		0.02	U
EP-78	8/19/98	5.4		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.25		0.025	U
EP-78	11/11/98	6.4		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.74		0.033	U
EP-78	2/18/99	4.7		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.2		0.029	U
EP-78	5/11/99	5.5		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.22		0.026	U
EP-78	5/11/99	5.9		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.32		0.028	U
EP-78	8/9/99	5.9	5.2	0.005	U	0.005	U	0.01	U	0.025	U	0.025	U	0.26	0.007	0.08	0.57
EP-78	10/31/99	4.6		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.3		0.02	U
EP-78	1/28/00	4.8		0.005	U	0.01	U	0.025	U	0.24		0.009		0.24		0.036	U
EP-78	5/2/00	4		0.005	U	0.01	U	0.025	U	0.21		0.004		0.2		0.032	U
EP-78	8/5/00	3.5		0.005	U	0.01	U	0.025	U	0.49		0.006		0.47		0.033	U
EP-78	11/9/00	3.8		0.005	U	0.01	U	0.025	U	0.1	U	0.013		0.27		0.02	U
EP-78	2/15/01	3.7		0.005	U	0.01	U	0.025	U	0.11		0.003	U	0.21		0.048	U
EP-78	5/14/01	3.9		0.005	U	0.01	U	0.025	U	0.91		0.012		0.16		0.06	U
EP-78	7/25/01	3.4		0.005	U	0.01	U	0.025	U	0.52		0.003	U	0.27	0.23	0.02	0.043
EP-78	11/12/01	4.2	4.1	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.32	0.23	0.02	0.021
EP-78	2/15/02	3.5	3.6	0.005	U	0.01	U	0.025	U	0.025	U	0.1	U	0.18	0.18	0.02	0.02
EP-78	5/7/02	3.2	3	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.21	0.18	0.02	0.035
EP-78	8/14/02	3.8	3.7	0.005	U	0.01	U	0.025	U	0.025	U	0.1	U	0.2	0.08	0.02	0.02
EP-78	11/13/02	3.6	3.6	0.005	U	0.01	U	0.025	U	0.025	U	0.1	U	0.12	0.03	0.02	0.02
EP-79	8/13/97	0.011		0.005	U	0.012		0.025	U	0.1	U	0.003	U	0.17		0.03	U
EP-79	11/13/97	0.01	U	0.005	U	0.012		0.025	U	0.1	U	0.003	U	0.19		0.02	U
EP-79	2/6/98	0.007		0.005	U	0.01		0.025	U	0.1	U	0.003	U	0.18		0.03	U
EP-79	5/14/98	0.008		0.005	U	0.011		0.025	U	0.1	U	0.003	U	0.17		0.02	U
EP-79	8/19/98	0.01		0.005	U	0.012		0.025	U	0.1	U	0.003	U	0.17		0.026	U
EP-79	11/11/98	0.009		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.15		0.03	U
EP-79	2/18/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.092		0.03	U
EP-79	5/11/99	0.026		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.14		0.024	U
EP-79	8/9/99	0.008	0.007	0.005	U	0.005	U	0.01	U	0.025	U	0.025	U	0.14	0.12	0.02	0.02
EP-79	10/31/99		0.009	0.005	U	0.01	U	0.025	U	0.025	U	0.1	U	0.12		0.02	U
EP-79	1/28/00		0.006	0.005	U	0.01	U	0.025	U	0.8		0.001		0.11		0.024	U
EP-79	1/28/00		0.006	0.005	U	0.011		0.025	U	0.9		0.006		0.11		0.025	U
EP-79	5/2/00		0.008	0.005	U	0.011		0.025	U	0.13		0.003	U	0.12		0.02	U
EP-79	8/9/00		0.007	0.005	U	0.01	U	0.025	U	0.32		0.003	U	0.11		0.02	U
EP-79	11/9/00		0.014	0.005	U	0.01	U	0.025	U	0.19		0.003	U	0.094		0.02	U
EP-79	2/15/01		0.01	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.11		0.042	U
EP-79	5/14/01		0.004	0.005	U	0.01	U	0.025	U	3.2		0.003	U	0.092		0.02	U
EP-79	7/25/01	0.02	0.024	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.11		0.02	0.023
EP-79	11/13/01	0.021	0.028	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.092	0.11	0.02	0.02
EP-79	2/15/02	0.011	0.018	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.1	0.1	0.02	0.02
EP-79	5/7/02	0.017	0.02	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.1	0.083	0.02	0.02
EP-79	8/14/02	0.011	0.01	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.083	0.084	0.022	0.02
EP-79	11/11/02																
EP-80	8/13/97	0.019		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.017		0.02	U
EP-80	11/17/97	0.018		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.041		0.02	U
EP-80	2/5/98	0.018		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.039		0.02	U
EP-80	5/13/98	0.02		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.039		0.023	U
EP-80	8/19/98	0.014		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005		0.03	U
EP-80	11/11/98	0.016		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.022		0.08	U

Appendix H

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-80	2/18/99	0.009		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.040		0.052	
EP-80	5/11/99	0.015		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.039		0.052	
EP-80	8/9/99	0.018	0.015	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.006	0.005	0.057	0.02
EP-80	10/27/99		0.015		0.005	U	0.01	U	0.025	U	0.54	U	0.003	U			0.02
EP-80	1/28/00		0.018		0.005	U	0.01	U	0.025	U	0.38	U	0.004	U	0.024		0.02
EP-80	5/2/00		0.017	U	0.005	U	0.01	U	0.025	U	0.67	U	0.006	U	0.017		0.023
EP-80	8/10/00		0.013		0.005	U	0.01	U	0.025	U	0.26	U	0.003	U	0.005	U	0.02
EP-80	11/9/00		0.02		0.005	U	0.01	U	0.025	U	0.15	U	0.003	U	0.021		0.024
EP-80	2/16/01		0.025		0.005	U	0.01	U	0.025	U	0.47	U	0.003	U	0.015		0.082
EP-80	5/14/01		0.013		0.005	U	0.01	U	0.025	U	0.79	U	0.003	U	0.007		0.027
EP-80	7/25/01	0.021	0.02	0.005	U	0.01	U	0.025	U	0.1	U	0.27	U	0.003	U	0.023	0.027
EP-80	11/13/01	0.033	0.039	0.005	U	0.01	U	0.025	U	0.1	U	0.67	U	0.003	U	0.02	0.022
EP-80	2/19/02	0.03	0.027	0.005	U	0.01	U	0.025	U	0.1	U	0.1	U	0.003	U	0.018	0.02
EP-80	5/11/02	0.034	0.031	0.011	U	0.01	U	0.025	U	0.1	U	0.61	U	0.003	U	0.005	0.069
EP-80	8/15/02	0.015	0.016	0.005	U	0.01	U	0.025	U	0.1	U	1.1	U	0.003	U	0.005	0.01
EP-80	11/7/02	0.014	0.014	0.005	U	0.01	U	0.025	U	0.1	U	0.21	U	0.003	U	0.013	0.02
EP-81	8/13/97	0.21		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.02	U
EP-81	11/17/97	0.19		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.025	
EP-81	2/5/98	0.32		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.025	
EP-81	5/14/98	0.24		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.021	
EP-81	8/19/98	0.25		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.026	
EP-81	11/11/98	0.089		0.006	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.024	
EP-81	2/18/99	0.21		0.007	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.019	
EP-81	5/11/99	0.24		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.024	
EP-81	8/9/99	0.4	0.36	0.005	U	0.01	U	0.025	U	0.1	U	0.15	U	0.003	U	0.025	0.043
EP-81	10/27/99		0.26		0.005	U	0.01	U	0.025	U	0.38	U	0.003	U		0.021	0.02
EP-81	1/28/00		0.64		0.005	U	0.01	U	0.025	U	2.1	U	0.006	U		0.026	0.032
EP-81	5/2/00		0.58		0.005	U	0.01	U	0.025	U	2.3	U	0.01	U		0.027	0.067
EP-81	8/9/00		0.78		0.005	U	0.01	U	0.025	U	0.32	U	0.003	U		0.028	0.024
EP-81	11/9/00		0.31		0.005	U	0.01	U	0.025	U	0.59	U	0.003	U		0.026	0.045
EP-81	2/16/01		0.53		0.006	U	0.01	U	0.025	U	0.58	U	0.003	U		0.029	0.11
EP-81	5/14/01		0.33		0.005	U	0.01	U	0.025	U	0.61	U	0.003	U		0.029	0.047
EP-81	7/25/01	0.55	0.48	0.005	U	0.01	U	0.025	U	0.1	U	0.1	U	0.003	U	0.031	0.054
EP-81	11/13/01	0.62	0.65	0.005	U	0.01	U	0.025	U	0.1	U	0.11	U	0.003	U	0.027	0.033
EP-81	2/19/02	0.55	0.56	0.005	U	0.01	U	0.025	U	0.1	U	0.66	U	0.003	U	0.024	0.02
EP-81	5/10/02	0.59	0.68	0.005	U	0.01	U	0.025	U	0.1	U	1.2	U	0.003	U	0.029	0.18
EP-81	8/15/02	0.25	0.23	0.005	U	0.01	U	0.025	U	0.1	U	1.5	U	0.003	U	0.011	0.027
EP-81	11/13/02																
P-82	8/13/97	0.016		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.02	U
P-82	11/18/97	0.011	U	0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.02	U
P-82	2/11/98	0.006	U	0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.017	0.024
P-82	5/14/98	0.01		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.018	0.022
P-82	8/19/98	0.009		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.018	0.027
P-82	11/11/98	0.01		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.022	0.042
P-82	2/18/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.013	0.038
P-82	5/11/99	0.01		0.005	U	0.01	U	0.025	U	0.1	U		U	0.003	U	0.018	0.058
P-82	8/9/99	0.01	0.009	0.005	U	0.01	U	0.025	U	0.1	U	0.1	U	0.003	U	0.017	0.05
P-82	10/31/99		0.011		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.011		0.02
P-82	1/27/00		0.006		0.005	U	0.01	U	0.025	U	0.33	U	0.004	U	0.012		0.02
P-82	5/2/00		0.009	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.013		0.02

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l		
EP-82	8/9/00		0.009		0.005	U	0.01	U	0.025	U	0.1		0.003		0.058		0.02		
EP-82	11/9/00		0.008		0.005	U	0.01	U	0.025	U	0.1		0.003		0.11		0.02		
EP-82	2/15/01		0.01		0.005	U	0.01	U	0.025	U	0.1		0.003		0.12		0.03		
EP-82	5/14/01		0.009		0.005	U	0.01	U	0.025	U	0.11	U	0.003		0.1		0.022		
EP-82	7/25/01	0.014	0.019	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.14	0.025	0.026	
EP-82	11/12/01	0.019	0.022	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.14	0.02	0.02	
EP-82	2/15/02	0.012	0.01	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.12	0.02	0.027	
EP-82	5/7/02	0.017	0.019	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.13	0.02	0.02	
EP-82	8/14/02	0.014	0.013	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.18	0.02	0.02	
EP-82	11/11/02																		
EP-83	8/13/97	0.01		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.053	U	0.027	U		
EP-83	11/18/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.037	U	0.02	U		
EP-83	2/6/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.044	U	0.02	U		
EP-83	5/13/98	0.01		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.054	U	0.02	U		
EP-83	8/19/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.044	U	0.026	U		
EP-83	11/12/98	0.008		0.009	U	0.01	U	0.025	U	0.1	U	0.003	U	0.028	U	0.14	U		
EP-83	2/22/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.029	U	0.025	U		
EP-83	2/22/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.04	U	0.033	U		
EP-83	5/11/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.045	U	0.025	U		
EP-83	8/9/99	0.006	0.005	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.047	0.042	0.02	
EP-83	10/30/99		0.007		0.005	U	0.01	U	0.025	U	1.2	U	0.003	U	0.041	U	0.02	U	
EP-83	10/30/99		0.008		0.005	U	0.01	U	0.025	U	2	U	0.003	U	0.046	U	0.025	U	
EP-83	1/27/00		0.006		0.005	U	0.01	U	0.025	U	0.25	U	0.003	U	0.036	U	0.02	U	
EP-83	1/27/00		0.005		0.005	U	0.01	U	0.025	U	0.27	U	0.003	U	0.04	U	0.02	U	
EP-83	5/1/00		0.008		0.005	U	0.01	U	0.025	U	0.37	U	0.003	U	0.048	U	0.02	U	
EP-83	8/9/00		0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.042	U	0.02	U	
EP-83	11/8/00		0.017		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.043	U	0.027	U	
EP-83	11/8/00		0.016		0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.041	U	0.028	U	
EP-83	2/14/01		0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.039	U	0.023	U	
EP-83	5/11/01		0.01		0.005	U	0.01	U	0.025	U	0.33	U	0.003	U	0.041	U	0.027	U	
EP-83	7/24/01	0.014	0.014	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.042	U	0.02	U		
EP-83	11/2/01	0.019	0.02	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.042	U	0.021	U		
EP-83	2/14/02	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.04	U	0.02	U		
EP-83	5/8/02	0.013	0.015	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.044	U	0.02	U		
EP-83	8/19/02	0.006	0.006	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.042	U	0.02	U		
EP-83	11/11/02																		
EP-84	8/13/97	0.1		0.007		0.01	U	0.026	U	0.1	U	0.009	U	0.036	U	0.042	U		
EP-84	11/18/97	0.041	U	0.007		0.01	U	0.025	U	0.1	U	0.01	U	0.031	U	0.035	U		
EP-84	2/6/98	0.035		0.007		0.01	U	0.037	U	0.1	U	0.018	U	0.023	U	0.048	U		
EP-84	5/13/98	0.034		0.006		0.01	U	0.025	U	0.1	U	0.006	U	0.025	U	0.052	U		
EP-84	8/13/98	0.03		0.006		0.01	U	0.025	U	0.1	U	0.027	U	0.024	U	0.046	U		
EP-84	11/12/98	0.031		0.009		0.01	U	0.025	U	0.1	U	0.016	U	0.021	U	0.046	U		
EP-84	2/22/99	0.022		0.008		0.01	U	0.025	U	0.1	U	0.013	U	0.021	U	0.046	U		
EP-84	5/11/99	0.024		0.006		0.01	U	0.025	U	0.1	U	0.013	U	0.024	U	0.044	U		
EP-84	8/9/99	0.097	0.093	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.008	U	0.019	0.017	0.025	0.02
EP-84	10/30/99		0.031		0.006		0.01	U	0.025	U	0.1	U	0.027	U	0.026	U	0.035	U	
EP-84	1/27/00		0.029		0.007		0.01	U	0.046	U	0.5	U	0.087	U	0.023	U	0.047	U	
EP-84	5/1/00		0.04		0.003		0.01	U	0.025	U	0.1	U	0.017	U	0.029	U	0.066	U	
EP-84	5/1/00		0.041		0.006		0.01	U	0.025	U	0.1	U	0.02	U	0.029	U	0.067	U	
EP-84	8/9/00		0.036		0.013		0.01	U	0.025	U	0.1	U	0.026	U	0.018	U	0.081	U	

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-84	8/9/00		0.033		0.013		0.01		0.025		0.1		0.02		0.019		0.088
EP-84	11/8/00		0.079		0.01		0.01		0.054		0.42		0.067		0.011		0.062
EP-84	2/14/01		0.025		0.005		0.01		0.025		0.1		0.029		0.015		0.059
EP-84	5/11/01		0.043		0.008		0.01		0.025		0.1		0.02		0.019		0.071
EP-84	5/11/01		0.041		0.008		0.01		0.025		0.1		0.019		0.019		0.072
EP-84	7/24/01	0.026	0.027	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.013	0.019	0.02	0.02	0.031	0.04
EP-84	11/2/01	0.031	0.031	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.014	0.022	0.021	0.021	0.03	0.034
EP-84	2/14/02	0.026	0.023	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.012	0.022	0.021	0.021	0.021	0.026
EP-84	2/14/02	0.02	0.021	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.012	0.022	0.018	0.018	0.021	0.026
EP-84	5/8/02	0.026	0.026	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.012	0.027	0.022	0.02	0.02	0.026
EP-84	8/19/02	0.025	0.027	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.013	0.019	0.021	0.021	0.022	0.03
EP-84	8/19/02	0.025	0.028	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.014	0.02	0.022	0.024	0.02	0.02
EP-84	11/11/02																
EP-85	8/13/97	3.1		0.005	0.01		0.025		0.1			0.003		0.22		0.02	
EP-85	11/17/97	3.2		0.005	0.01		0.025		0.1			0.003		0.19		0.02	
EP-85	2/5/98	2.9		0.005	0.01		0.025		0.1			0.003		0.15		0.02	
EP-85	5/14/98	2.8		0.005	0.01		0.025		0.1			0.003		0.16		0.025	
EP-85	8/19/98	2.7		0.005	0.01		0.025		0.1			0.003		0.16		0.019	
EP-85	8/19/98	2.7		0.005	0.01		0.025		0.1			0.003		0.16		0.032	
EP-85	11/11/98	3.1		0.005	0.01		0.025		0.1			0.003		0.24		0.033	
EP-85	2/18/99	2.5		0.005	0.01		0.025		0.1			0.003		0.16		0.039	
EP-85	2/18/99	2.6		0.005	0.01		0.025		0.1			0.003		0.16		0.045	
EP-85	5/11/99	2.9		0.005	0.01		0.025		0.1			0.003		0.17		0.02	
EP-85	8/9/99	2.8	2.6	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.015	0.2	0.18	0.02	0.02
EP-85	8/9/99	2.8	2.6	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.004	0.2	0.16	0.02	0.023
EP-85	10/27/99		2.4		0.005		0.01		0.025		0.1		0.004		0.18		0.02
EP-85	10/27/99		2.5		0.005		0.01		0.025		0.1		0.003		0.19		0.02
EP-85	1/28/00		2.3		0.005		0.01		0.025		0.1		0.003		0.15		0.02
EP-85	5/2/00		2.2		0.005		0.01		0.025		0.1		0.002		0.14		0.021
EP-85	5/2/00		2.2		0.005		0.01		0.025		0.1		0.003		0.14		0.02
EP-85	8/9/00		2.6		0.005		0.01		0.025		0.44		0.006		0.18		0.02
EP-85	11/9/00		2.2		0.005		0.01		0.025		0.1		0.002		0.17		0.02
EP-85	11/9/00		2.2		0.005		0.01		0.025		0.1		0.003		0.17		0.02
EP-85	2/16/01		2.3		0.005		0.01		0.025		0.1		0.003		0.15		0.039
EP-85	2/16/01		2.3		0.005		0.01		0.025		0.11		0.004		0.16		0.051
EP-85	5/14/01		2.1		0.005		0.01		0.025		0.12		0.004		0.13		0.02
EP-85	7/25/01	2.1	2.2	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.13	0.14	0.02	0.02
EP-85	11/13/01	2.4	2.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.073	0.083	0.02	0.02
EP-85	2/19/02	1.5	1.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.12	0.11	0.02	0.02
EP-85	2/19/02	1.5	1.5	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.12	0.11	0.02	0.02
EP-85	5/10/02	1.7	1.7	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.15	0.12	0.051	0.075
EP-85	5/10/02	1.8	1.8	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.15	0.12	0.072	0.075
EP-85	8/15/02	1.9	2	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.19	0.19	0.02	0.02
EP-85	8/15/02	1.9	1.9	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.19	0.19	0.02	0.02
EP-85	11/13/02	1.8	1.8	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.24	0.23	0.02	0.02
EP-86	8/13/97	0.011		0.005	0.01		0.025		0.1			0.003		0.043		0.02	
EP-86	11/18/97	0.007		0.005	0.01		0.025		0.1			0.003		0.038		0.02	
EP-86	2/6/98	0.005		0.005	0.01		0.025		0.1			0.003		0.029		0.02	
EP-86	5/14/98	0.008		0.005	0.01		0.025		0.1			0.003		0.041		0.02	
EP-86	8/19/98	0.005		0.005	0.01		0.025		0.1			0.003		0.038		0.025	

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l		
EP-86	11/12/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.001	U	0.011		0.13			
EP-86	11/12/98	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.001	U	0.027		0.13			
EP-86	2/18/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.02		0.14			
EP-86	5/11/99	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.031		0.15			
EP-86	8/9/99	0.008	0.007	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.004	U	0.02	U		
EP-86	10/31/99		0.005	U	0.005	U	0.01	U	0.025	U	0.17	0.003	U	0.033		0.02	U		
EP-86	10/31/99		0.005	U	0.005	U	0.01	U	0.025	U	0.16	0.003	U	0.034		0.02	U		
EP-86	1/27/00		0.005	U	0.005	U	0.01	U	0.025	U	0.66	0.006	U	0.031		0.02	U		
EP-86	5/2/00		0.008	U	0.005	U	0.01	U	0.025	U	0.22	0.005	U	0.03		0.02	U		
EP-86	8/9/00		0.005	U	0.005	U	0.01	U	0.025	U	0.21	0.003	U	0.028		0.02	U		
EP-86	11/9/00		0.007	U	0.005	U	0.01	U	0.025	U	0.3	0.003	U	0.027		0.02	U		
EP-86	2/15/01		0.009	U	0.005	U	0.01	U	0.025	U	0.21	0.003	U	0.029		0.027	U		
EP-86	2/15/01		0.01	U	0.005	U	0.01	U	0.025	U	0.23	0.003	U	0.029		0.027	U		
EP-86	5/14/01		0.006	U	0.003	U	0.01	U	0.025	U	0.7	0.004	U	0.027		0.02	U		
EP-86	7/25/01	0.013	0.011	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.003	U	0.02	U		
EP-86	7/25/01	0.014	0.012	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.17	0.003	U	0.02	U		
EP-86	11/13/01	0.022	0.029	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.19	0.003	U	0.02	U		
EP-86	11/13/01	0.019	0.027	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.21	0.003	U	0.02	U		
EP-86	2/15/02	0.007	0.007	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.14	0.003	U	0.02	U		
EP-86	5/7/02	0.021	0.019	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.26	0.003	U	0.02	U		
EP-86	8/14/02	0.013	0.013	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.1	0.003	U	0.02	U		
EP-86	8/14/02	0.012	0.012	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.1	0.003	U	0.02	U		
EP-86	11/11/02																		
EP-87	9/15/97	0.054		0.005	U	0.015	U	0.033	U	0.1	U	0.006	U	0.005	U	0.03			
EP-87	11/18/97	0.033	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
EP-87	8/10/99	0.029	0.027	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.19	0.003	U	0.02	U		
EP-88	8/12/97	0.02		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.004	U	0.025	U		
EP-88	11/11/97	0.017		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.029	U	0.025	U		
EP-88	2/12/98	0.017	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.011	U	0.031	U		
EP-88	5/11/98	0.032		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.029	U	0.027	U		
EP-88	8/17/98	0.027		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.024	U	0.016	U		
EP-88	11/11/98	0.016		0.012	U	0.01	U	0.025	U	0.1	U	0.003	U	0.035	U	0.017	U		
EP-88	2/11/99	0.028		0.008	U	0.01	U	0.025	U	0.1	U	0.003	U	0.018	U	0.077	U		
EP-88	5/7/99	0.017		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.032	U	0.027	U		
EP-88	8/5/99	0.021	0.024	0.005	U	0.005	U	0.01	U	0.025	U	0.003	U	0.038	U	0.028	U		
EP-88	10/30/99		0.022		0.005	U	0.01	U	0.025	U	0.51	0.003	U	0.035	U	0.021	U		
EP-88	1/26/00		0.012		0.005	U	0.01	U	0.025	U	0.69	0.004	U	0.06	U	0.022	U		
EP-88	1/26/00		0.013		0.005	U	0.01	U	0.025	U	0.75	0.004	U	0.057	U	0.021	U		
EP-88	4/28/00		0.053		0.004	U	0.01	U	0.025	U	1.5	0.012	U	0.046	U	0.066	U		
EP-88	8/4/00		0.027		0.005	U	0.01	U	0.025	U	0.1	U	U	0.041	U	0.02	U		
EP-88	11/7/00		0.025		0.005	U	0.01	U	0.025	U	0.16	U	0.004	U	0.045	U	0.024	U	
EP-88	2/14/01		0.021		0.005	U	0.01	U	0.025	U	0.91	0.004	U	0.067	U	0.036	U		
EP-88	5/9/01		0.028		0.005	U	0.01	U	0.025	U	0.21	0.003	U	0.047	U	0.067	U		
EP-88	7/19/01	0.025	0.024	0.005	U	0.005	U	0.01	U	0.025	U	0.95	0.003	U	0.04	0.087	0.02	U	
EP-88	11/1/01	0.042	0.041	0.005	U	0.005	U	0.01	U	0.025	U	0.71	0.003	U	0.057	0.054	0.054	U	
EP-88	2/11/02	0.041	0.043	0.005	U	0.005	U	0.01	U	0.025	U	0.1	0.22	0.003	U	0.06	0.064	0.02	U
EP-88	5/2/02	0.047	0.048	0.005	U	0.005	U	0.01	U	0.025	U	0.62	0.003	U	0.055	0.057	0.02	U	
EP-88	8/9/02	0.041	0.057	0.005	U	0.005	U	0.01	U	0.025	U	1.4	0.003	U	0.064	0.087	0.02	U	
EP-88	11/14/02																		
EP-89	8/12/97	0.01		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.026	U	0.02	U		

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-89	11/13/97	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.018		0.02	U
EP-89	2/11/98	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.013		0.02	U
EP-89	5/13/98	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.026		0.02	U
EP-89	8/13/98	0.009		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.028		0.028	U
EP-89	11/10/98	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.015		0.016	U
EP-89	2/10/99	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.023		0.027	U
EP-89	5/7/99	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.016		0.022	U
EP-89	8/5/99	0.009	0.012	0.005	U	0.01	U	0.025	U	0.025	U	0.003	U	0.005	0.024	0.026	0.029
EP-89	8/5/99	0.009	0.011	0.005	U	0.01	U	0.025	U	0.025	U	0.003	U	0.004	0.019	0.024	0.025
EP-89	10/28/99	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.016	0.016	0.02	U
EP-89	10/28/99	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.016	0.016	0.02	U
EP-89	1/24/00	0.007		0.005	U	0.01	U	0.025	U	0.12	U	0.015	U	0.019	0.019	0.02	U
EP-89	4/25/00	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.018		0.041	U
EP-89	4/25/00	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.005	U	0.017		0.023	U
EP-89	8/2/00	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.019	U	0.017		0.02	U
EP-89	10/31/00	0.005	U	0.005	U	0.01	U	0.025	U	0.16	U	0.006	U	0.019		0.038	U
EP-89	10/31/00	0.007		0.005	U	0.01	U	0.025	U	0.11	U	0.007	U	0.024		0.049	U
EP-89	2/8/01	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.005	U	0.018		0.046	U
EP-89	5/7/01	0.005		0.005	U	0.01	U	0.025	U	0.14	U	0.003	U	0.017		0.04	U
EP-89	5/7/01	0.005		0.005	U	0.01	U	0.025	U	0.11	U	0.003	U	0.016		0.038	U
EP-89	7/17/01	0.012	0.012	0.005	U	0.01	U	0.025	U	0.025	U	0.003	U	0.016	0.017	0.02	0.023
EP-89	10/30/01	0.01	0.011	0.005	U	0.01	U	0.025	U	0.025	U	0.009	U	0.02	0.017	0.02	0.026
EP-89	2/7/02	0.008	0.008	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.017	0.024	0.02	0.02
EP-89	4/30/02	0.01	0.01	0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.017	0.017	0.02	0.02
EP-89	4/30/02	0.011	0.01	0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.018	0.018	0.02	0.02
EP-89	8/6/02	0.007	0.008	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.019	0.022	0.02	0.025
EP-89	11/11/02			0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.017		0.022	U
EP-90	5/7/98	0.39		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.17		0.022	U
EP-90	12/12/97	0.15		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.69		0.19	U
EP-90	2/17/98	0.18		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.75		0.02	U
EP-90	5/13/98	0.17		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.86		0.027	U
EP-90	8/17/98	0.21		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.51		0.04	U
EP-90	11/5/98	0.17	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.61		0.034	U
EP-90	2/11/99	0.15		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.42		0.02	U
EP-90	5/10/99	0.13		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.86		0.038	U
EP-90	8/5/99	0.16	0.17	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	1.1	1	0.025	0.034
EP-90	10/10/99		0.14		0.005	U	0.01	U	0.025	0.22	U	0.003	U	1.1	1	0.02	U
EP-90	1/24/00		0.12		0.005	U	0.01	U	0.025	2	U	0.011	U	1.2	1	0.02	U
EP-90	4/26/00		0.12		0.006	U	0.01	U	0.025	3.2	U	0.005	U	1.3	1	0.028	U
EP-90	8/4/00		0.13		0.01	U	0.01	U	0.025	1.6	U	0.003	U	1.3	1	0.02	U
EP-90	11/3/00		0.14		0.008	U	0.01	U	0.025	0.97	U	0.003	U	1.5	1	0.027	U
EP-90	11/3/00		0.14		0.008	U	0.01	U	0.025	0.98	U	0.003	U	1.5	1	0.025	U
EP-90	2/12/01		0.14		0.005	U	0.01	U	0.025	1.4	U	0.006	U	1.4	1	0.018	U
EP-90	5/8/01		0.14		0.016	U	0.01	U	0.025	5.4	U	0.004	U	1.3	1	0.028	U
EP-90	7/19/01	0.14	0.15	0.01	0.011	0.01	U	0.025	U	0.1	U	0.003	U	1.1	1	0.023	0.037
EP-90	7/19/01	0.14	0.14	0.01	0.011	0.01	U	0.025	U	0.1	U	0.003	U	1.1	1	0.023	0.035
EP-90	11/1/01	0.15	0.15	0.007	0.009	0.01	U	0.025	U	0.1	U	0.003	U	0.71	0.69	0.02	0.03
EP-90	2/8/02	0.17	0.17	0.032	0.042	0.01	U	0.025	U	0.1	U	0.003	U	0.47	0.52	0.02	0.025
EP-90	2/8/02	0.17	0.17	0.032	0.033	0.01	U	0.025	U	0.1	U	0.003	U	0.47	0.52	0.02	0.027
EP-90	5/1/02	0.15	0.15	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.46	0.37	0.02	0.029

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV R1
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-90	8/7/02	0.16	0.16	0.013	0.013	0.01	u	0.01	u	0.025	u	0.025	u	0.1	u	0.035	u
EP-90	11/11/02																
EP-93	10/13/99		0.005		0.005	u	0.01	u	0.025	u	11		0.008		0.017		0.053
EP-93	1/27/00		0.031		0.005	u	0.14		0.044		61		0.033		0.044		0.1
EP-93	5/1/00		0.017		0.005	u	0.013		0.025	u	3.1		0.006	u	0.037		0.048
EP-93	8/9/00		0.01		0.005	u	0.016		0.025	u	9.3		0.009		0.029		0.041
EP-93	11/8/00		0.022		0.005	u	0.026		0.025	u	5.2		0.006		0.031		0.038
EP-93	2/14/01		0.015		0.005	u	0.01	u	0.025	u	1.9		0.005		0.041		0.072
EP-93	5/11/01		0.019		0.005	u	0.01	u	0.025	u	5.1		0.003	u	0.034		0.063
EP-93	7/24/01	0.033	0.03	0.005	u	0.005	u	0.01	u	0.01	u	4.3	0.003	u	0.012	0.04	0.038
EP-93	11/2/01	0.051	0.043	0.005	u	0.005	u	0.01	u	0.01	u	2.8	0.003	u	0.003	0.039	0.041
EP-93	2/15/02	0.013	0.016	0.005	u	0.005	u	0.01	u	0.01	u	1.3	0.003	u	0.003	0.04	0.045
EP-93	5/8/02	0.028	0.029	0.005	u	0.005	u	0.01	u	0.01	u	0.47	0.003	u	0.006	0.048	0.044
EP-93	8/19/02	0.008	0.009	0.005	u	0.005	u	0.01	u	0.01	u	1.5	0.003	u	0.003	0.036	0.038
EP-93	11/11/02																
EP-94	10/13/99		0.007		0.005	u	0.01	u	0.025	u	2.2		0.008		0.017		0.075
EP-94	1/27/00		0.014		0.005	u	0.01	u	0.025	u	0.5		0.007		0.021		0.028
EP-94	5/1/00		0.014		0.005	u	0.01	u	0.025	u	0.21		0.026		0.035		0.014
EP-94	8/9/00		0.009		0.005	u	0.01	u	0.025	u	0.11		0.003	u	0.026		0.028
EP-94	11/8/00		0.015		0.005	u	0.01	u	0.025	u	0.18		0.003		0.023		0.031
EP-94	2/14/01		0.013		0.005	u	0.01	u	0.025	u	0.19		0.003	u	0.029		0.048
EP-94	5/11/01		0.016		0.005	u	0.01	u	0.025	u	0.25		0.003		0.026		0.054
EP-94	7/24/01	0.015	0.015	0.005	u	0.005	u	0.01	u	0.01	u	0.2	0.003	u	0.003	0.029	0.03
EP-94	11/2/01	0.024	0.026	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.029	0.025
EP-94	2/15/02	0.013	0.014	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.03	0.02
EP-94	2/15/02	0.013	0.011	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.031	0.02
EP-94	5/8/02	0.015	0.016	0.005	u	0.005	u	0.01	u	0.01	u	0.14	0.003	u	0.007	0.031	0.02
EP-94	8/19/02	0.007	0.008	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.026	0.029
EP-94	11/11/02																
EP-95	10/16/99		0.006		0.005	u	0.01	u	0.025	u	1.2		0.003	u	0.022		0.02
EP-95	1/27/00		0.009		0.005	u	0.01	u	0.025	u	0.13		0.003	u	0.011		0.02
EP-95	5/1/00		0.014		0.005	u	0.01	u	0.025	u	0.1		0.003	u	0.035		0.03
EP-95	8/9/00		0.011		0.005	u	0.01	u	0.025	u	0.14		0.003	u	0.027		0.02
EP-95	11/8/00		0.015		0.005	u	0.01	u	0.025	u	0.1		0.003	u	0.029		0.02
EP-95	2/14/01		0.015		0.005	u	0.01	u	0.025	u	0.1		0.003	u	0.028		0.031
EP-95	5/11/01		0.013		0.005	u	0.01	u	0.025	u	0.14		0.003	u	0.026		0.02
EP-95	7/24/01	0.017	0.017	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.029	0.03
EP-95	11/2/01	0.017	0.018	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.029	0.03
EP-95	2/15/02	0.018	0.021	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.028	0.02
EP-95	2/15/02	0.018	0.021	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.028	0.02
EP-95	5/8/02	0.009	0.011	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.026	0.02
EP-95	8/19/02	0.017	0.017	0.005	u	0.005	u	0.01	u	0.01	u	0.1	0.003	u	0.003	0.029	0.028
EP-95	11/11/02																
EP-95	10/13/99		0.035		0.005	u	0.01	u	0.025	u	1.2		0.017		0.019		0.053
EP-95	1/27/00		0.007		0.005	u	0.021		0.025	u	8.6		0.01		0.015		0.045
EP-95	5/1/00		0.012		0.005	u	0.011		0.025	u	7.4		0.014	u	0.019		0.056
EP-95	8/9/00		0.008		0.005	u	0.01	u	0.025	u	4.2		0.007		0.017		0.034
EP-95	11/8/00		0.019		0.005	u	0.01	u	0.025	u	3.2		0.005		0.013		0.032

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
EP-96	2/14/01		0.014		0.005	U	0.01	U	0.025	U	1.1		0.001	U	0.021		0.095
EP-96	5/11/01		0.023		0.003	U	0.01	U	0.025	U	1.1		0.006	U	0.024		0.078
EP-96	7/24/01	0.044	0.039	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.007	U	0.027	0.02
EP-96	11/2/01	0.031	0.027	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.026	0.02
EP-96	2/15/02	0.011	0.012	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.024	0.02
EP-96	5/8/02	0.022	0.022	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.026	0.02
EP-96	8/19/02	0.009	0.009	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.026	0.02
EP-97	10/18/99		0.16		0.019		0.01	U	0.23		8.3		0.005	U	0.02		0.16
EP-97	1/27/00		0.14		0.013		0.01	U	0.19		4.7		0.13		0.008		0.16
EP-97	5/1/00		0.11		0.008		0.01	U	0.11		1.4		0.054		0.015		0.11
EP-97	8/9/00		0.15		0.009		0.01	U	0.19		0.45		0.024		0.009		0.055
EP-97	11/8/00		0.16		0.008		0.01	U	0.34		5.3		0.15		0.005	U	0.13
EP-97	2/14/01		0.12		0.012		0.01	U	0.22		4.3		0.18		0.006		0.21
EP-97	5/14/01		0.2		0.023		0.015		0.32		22		0.69		0.005		0.31
EP-97	7/24/01	0.14	0.15	0.011	0.012	0.01	U	0.01	0.29	0.32	0.1	0.51	0.017	0.035	0.093	0.006	0.14
EP-97	11/2/01	0.17	0.16	0.011	0.012	0.01	U	0.01	0.2	0.27	0.1	2.3	0.02	0.077	0.011	0.015	0.14
EP-97	2/14/02	0.12	0.12	0.005	U	0.005	U	0.01	0.1	0.13	0.1	0.48	0.012	0.038	0.005	0.005	0.062
EP-97	5/8/02	0.13	0.13	0.005	U	0.005	U	0.01	0.078	0.096	0.1	1.1	0.009	0.044	0.01	0.013	0.056
EP-97	8/19/02	0.23	0.23	0.01	0.011	0.01	U	0.01	0.088	0.18	0.14	2	0.03	0.072	0.013	0.016	0.1
EP-97	11/11/02																
EP-98	10/18/99		0.018		0.005	U	0.01	U	0.035		11		0.026		0.36		0.044
EP-98	1/27/00		0.027		0.005	U	0.01	U	0.044		3.9		0.027		0.63		0.048
EP-98	5/1/00		0.037		0.005	U	0.01	U	0.039		0.43		0.003	U	0.07		0.041
EP-98	8/9/00		0.021		0.005	U	0.01	U	0.025	U	0.3		0.034		0.46		0.032
EP-98	11/8/00		0.027		0.005	U	0.01	U	0.025	U	0.13		0.003	U	0.28		0.026
EP-98	2/14/01		0.023		0.005	U	0.01	U	0.025	U	0.29		0.006		0.47		0.07
EP-98	5/14/01		0.031		0.005	U	0.01	U	0.031		0.61	U	0.01		0.69		0.066
EP-98	5/14/01		0.032		0.005	U	0.01	U	0.032		0.38	U	0.008		0.69		0.073
EP-98	7/24/01	0.037	0.037	0.005	U	0.005	U	0.01	0.025	U	0.1	U	0.003	U	0.006	0.5	0.023
EP-98	11/2/01	0.038	0.041	0.005	U	0.005	U	0.01	0.025	U	0.1	U	0.003	U	0.003	0.28	0.026
EP-98	2/14/02	0.02	0.023	0.005	U	0.005	U	0.01	0.025	U	0.1	U	0.003	U	0.003	0.2	0.021
EP-98	5/8/02	0.044	0.038	0.005	U	0.005	U	0.01	0.025	U	0.1	U	0.003	U	0.01	0.4	0.02
EP-98	8/19/02	0.017	0.016	0.005	U	0.005	U	0.01	0.025	U	0.1	U	0.003	U	0.006	0.34	0.02
EP-98	11/11/02																
EP-99	10/18/99		5.4		0.005	U	0.01	U	0.042		13		0.15		0.99		0.26
EP-99	8/9/00		6.5		0.005	U	0.01	U	0.058		2.2		0.036		1.1		0.095
EP-99	11/8/00		3.7		0.005	U	0.01	U	0.032		0.83		0.011		1.2		0.062
EP-99	2/22/01		6.5		0.007		0.016		0.36		22		0.3		1.1		0.73
EP-99	5/9/01																
EP-99	7/26/01																
EP-99	11/5/01																
EP-99	2/13/02																
EP-99	5/10/02																
EP-99	8/14/02																
SEP-1	8/15/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U
SEP-1	11/10/97	0.82		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.16		0.02	U
SEP-1	2/13/98	0.62		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.12		0.02	U
SEP-1	5/20/98	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.005	U	0.02	U
SEP-1	8/11/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U
SEP-1	2/19/99	0.008		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.025	U

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results

Phase IV RI

El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l		
SEP-1	5/12/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-1	8/20/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-1	11/1/99		0.007		0.005	U	0.01	U	0.025	U	0.2		0.005	U	0.005	U	0.067	U	
SEP-1	1/31/00		0.005	U	0.005	U	0.01	U	0.025	U	1.1		0.003	U	0.005	U	0.02	U	
SEP-1	5/9/00		0.007		0.005	U	0.01	U	0.025	U	1.7		0.007	U	0.005	U	0.03	U	
SEP-1	8/14/00		0.005	U	0.005	U	0.01	U	0.025	U	5.9		0.006	U	0.005	U	0.034	U	
SEP-1	8/14/00		0.005	U	0.005	U	0.01	U	0.025	U	5.6		0.005	U	0.005	U	0.024	U	
SEP-1	11/10/00		0.005	U	0.005	U	0.01	U	0.025	U	7.7		0.014	U	0.005	U	0.025	U	
SEP-1	2/23/01		0.005	U	0.005	U	0.01	U	0.025	U	1.6		0.003	U	0.005	U	0.033	U	
SEP-1	5/18/01		0.005	U	0.005	U	0.01	U	0.025	U	3	U	0.003	U	0.005	U	0.02	U	
SEP-1	7/31/01	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.004	U	0.005	U	0.02	U
SEP-1	7/31/01	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.004	U	0.005	U	0.02	U
SEP-1	11/16/01	0.005		0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U
SEP-1	2/22/02	0.008		0.008	U	0.005	U	0.01	U	0.01	U	0.025	U	0.004	U	0.005	U	0.02	U
SEP-1	5/13/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U
SEP-1	5/13/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U
SEP-1	5/13/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U
SEP-1	8/21/02	0.005		0.006	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.025	U
SEP-1	11/13/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U
SEP-10	8/15/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	8/15/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	11/19/97	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	2/13/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	5/19/98	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	5/19/98	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	8/18/98	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	11/18/98	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	2/19/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	5/13/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	8/20/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-10	11/1/99		0.013		0.005	U	0.01	U	0.025	U	0.59		0.008	U	0.005	U	0.045	U	
SEP-10	2/14/00		0.012		0.005	U	0.01	U	0.025	U	0.79	U	0.003	U	0.005	U	0.02	U	
SEP-10	5/10/00		0.009		0.005	U	0.01	U	0.025	U	1.4		0.005	U	0.005	U	0.026	U	
SEP-10	5/10/00		0.01		0.005	U	0.01	U	0.025	U	1.2		0.006	U	0.005	U	0.03	U	
SEP-10	8/21/00		0.005	U	0.005	U	0.01	U	0.025	U	8.1		0.008	U	0.005	U	0.019	U	
SEP-10	11/15/00		0.019		0.005	U	0.01	U	0.025	U	9.74		0.003	U	0.008	U	0.019	U	
SEP-10	2/28/01		0.005		0.005	U	0.01	U	0.025	U	2.9		0.003	U	0.005	U	0.021	U	
SEP-10	5/17/01		0.005	U	0.005	U	0.01	U	0.025	U	1.7		0.001	U	0.005	U	0.02	U	
SEP-10	7/31/01	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.005	U	0.005	U	0.02	U
SEP-10	11/16/01	0.007	0.006	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U	
SEP-10	2/22/02	0.01	0.011	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U
SEP-10	5/14/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U
SEP-10	8/22/02	0.006	0.007	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.023	U
SEP-10	12/15/02	0.009	0.01	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.003	U	0.005	U	0.02	U
SEP-11	8/15/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	11/10/97	0.009		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	2/13/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	5/19/98	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	8/18/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	11/18/98	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	11/18/98	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l		
SEP-11	2/19/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	5/13/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	5/13/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	8/20/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-11	11/2/99		0.01		0.005	U	0.01	U	0.025	U	0.73	U	0.005		0.005	U	0.02	U	
SEP-11	2/14/00		0.014		0.005	U	0.01	U	0.025	U	0.47	U	0.013		0.005	U	0.029	U	
SEP-11	5/10/00		0.008		0.005	U	0.01	U	0.025	U	1.4		0.001		0.005	U	0.024	U	
SEP-11	8/21/00		0.005	U	0.005	U	0.01	U	0.025	U	8.2		0.009		0.005	U	0.018	U	
SEP-11	11/15/00		0.013		0.005	U	0.01	U	0.025	U	0.67		0.003	U	0.007	U	0.015	U	
SEP-11	11/15/00		0.013		0.005	U	0.01	U	0.025	U	0.66		0.003	U	0.007	U	0.04	U	
SEP-11	2/28/01		0.005		0.005	U	0.01	U	0.025	U	2.9		0.004		0.005	U	0.023	U	
SEP-11	5/17/01		0.005	U	0.005	U	0.01	U	0.025	U	2.1		0.001	U	0.005	U	0.02	U	
SEP-11	7/31/01	0.005	U	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.013	U
SEP-11	11/16/01	0.015	0.009	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	U	0.003	U	0.02	U
SEP-11	2/22/02	0.009	0.01	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	U	0.003	U	0.01	U
SEP-11	5/14/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	U	0.003	U	0.02	U
SEP-11	8/22/02	0.007	0.007	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	U	0.004	U	0.018	U
SEP-11	12/16/02	0.008	0.008	0.005	U	0.005	U	0.01	U	0.013	U	0.025	U	0.1	U	0.003	U	0.02	U
SEP-12	8/15/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-12	11/10/97	0.009		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-12	2/13/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-12	5/19/98	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-12	8/20/98	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-12	11/18/98	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-12	2/19/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-12	5/13/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-12	8/23/99	0.005	U	0.005	U	0.01	U	0.025	U	0.18	U	0.003	U	0.005	U	0.02	U		
SEP-12	11/1/99		0.019		0.005	U	0.01	U	0.025	U	0.34		0.005		0.005	U	0.061	U	
SEP-12	11/1/99		0.019		0.005	U	0.01	U	0.025	U	0.44		0.003		0.006	U	0.025	U	
SEP-12	2/14/00		0.013		0.005	U	0.01	U	0.025	U	0.66	U	0.003	U	0.005	U	0.02	U	
SEP-12	5/10/00		0.008		0.005	U	0.01	U	0.025	U	1.2		0.004		0.005	U	0.027	U	
SEP-12	8/21/00		0.005	U	0.005	U	0.01	U	0.025	U	10		0.013		0.005	U	0.04	U	
SEP-12	11/15/00		0.014		0.005	U	0.01	U	0.025	U	0.84		0.004		0.005	U	0.034	U	
SEP-12	2/28/01		0.007		0.005	U	0.01	U	0.025	U	2.5		0.003		0.005	U	0.02	U	
SEP-12	5/17/01		0.005		0.005	U	0.01	U	0.025	U	1.9		0.003	U	0.005	U	0.02	U	
SEP-12	8/1/01	0.005	0.005	0.005	U	0.01	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.026	U
SEP-12	11/16/01	0.008	0.007	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.1	U	0.003	U	0.02	U
SEP-12	2/22/02	0.011	0.011	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	0.56	U	0.003	U	0.02	U
SEP-12	5/14/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	1.2	U	0.003	U	0.02	U
SEP-12	8/22/02	0.007	0.007	0.005	U	0.005	U	0.01	U	0.01	U	0.025	U	3.3	U	0.003	U	0.026	U
SEP-12	12/16/02	0.018	0.02	0.005	U	0.005	U	0.01	U	0.016	U	0.025	U	6.3	U	0.003	U	0.02	U
SEP-13	8/15/97	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-13	11/10/97	0.009		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-13	2/13/98	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-13	5/19/98	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-13	8/20/98	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-13	8/20/98	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-13	11/18/98	0.007		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-13	2/19/99	0.006		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		
SEP-13	5/13/99	0.005		0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U		

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
SEP-13	8/20/99	0.005	U		0.005	U		0.01	U			0.025	U			0.001	U
SEP-13	11/1/99		0.02		0.005	U		0.01	U		0.53		0.006		0.006		0.079
SEP-13	2/14/00		0.014		0.005	U		0.01	U		0.46	U	0.003		0.005		0.02
SEP-13	2/14/00		0.013		0.005	U		0.01	U		0.6	U	0.003	U	0.005		0.02
SEP-13	5/10/00		0.008		0.005	U		0.01	U		1.2		0.003	U	0.005	U	0.033
SEP-13	8/21/00		0.005	U	0.005	U		0.01	U		9.7		0.008		0.005	U	0.04
SEP-13	8/21/00		0.005	U	0.005	U		0.01	U		9.6		0.037		0.005	U	0.036
SEP-13	11/15/00		0.015		0.005	U		0.01	U		1.3		0.009		0.005	U	0.043
SEP-13	2/28/01		0.008		0.005	U		0.01	U		2		0.003	U	0.005	U	0.03
SEP-13	2/28/01		0.008		0.005	U		0.01	U		2		0.003	U	0.005	U	0.02
SEP-13	5/17/01		0.005		0.005	U		0.01	U		1.7		0.003	U	0.005	U	0.02
SEP-13	8/1/01	0.005	U	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	3.1	0.003	U	0.005
SEP-13	11/16/01	0.009		0.007	U	0.005	U	0.01	U	0.01	U	0.25	0.003	U	0.003	U	0.005
SEP-13	2/22/02	0.011	0.012	0.005	U	0.005	U	0.01	U	0.01	U	0.46	0.003	U	0.003	U	0.005
SEP-13	5/14/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	1.4	0.003	U	0.003	U	0.005
SEP-13	8/22/02	0.008		0.007	U	0.005	U	0.01	U	0.01	U	3.2	0.003	U	0.004	U	0.005
SEP-13	12/16/02	0.022	0.024	0.005	U	0.005	U	0.025	U	0.01	U	0.42	0.003	U	0.003	U	0.005
SEP-14	11/12/98	0.057		0.005	U		0.01	U		0.04	U		0.004		0.005	U	0.02
SEP-14	8/1/99	0.043		0.005	U		0.01	U	0.065	U	0.14		0.011		0.005	U	0.023
SEP-14	8/21/00		0.058		0.005	U		0.01	U		2.5		0.073		0.009	U	0.14
SEP-14	11/14/00		0.038		0.005	U		0.01	U		0.39		0.087		0.005	U	0.23
SEP-14	11/14/00		0.035		0.005	U		0.01	U		0.32		0.076		0.003	U	0.19
SEP-14	6/27/01		0.094		0.005	U		0.01	U		1.2		0.37		0.005	U	1.3
SEP-14	6/27/01		0.096		0.005	U		0.01	U		1.2		0.38		0.005	U	1.3
SEP-2	8/15/97	0.005	U		0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	11/10/97	0.009			0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	2/13/98	0.006			0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	5/19/98	0.005	U		0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	8/18/98	0.005	U		0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	11/18/98	0.007			0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	2/19/99	0.005			0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	2/19/99	0.006			0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	5/13/99	0.005			0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	8/20/99	0.005	U		0.005	U		0.01	U			0.003	U			0.005	U
SEP-2	11/1/99		0.024		0.005	U		0.01	U		0.71		0.012		0.005	U	0.056
SEP-2	2/14/00		0.013		0.005	U		0.01	U		0.48	U	0.003	U	0.005	U	0.02
SEP-2	5/10/00		0.007		0.005	U		0.01	U		1.2		0.007		0.005	U	0.038
SEP-2	8/21/00		0.005		0.005	U		0.01	U		9		0.019		0.005	U	0.03
SEP-2	11/15/00		0.014		0.005	U		0.01	U		1.4		0.004		0.006	U	0.041
SEP-2	2/28/01		0.007		0.005	U		0.01	U		2.8		0.003		0.005	U	0.023
SEP-2	5/17/01		0.005		0.005	U		0.01	U		2.1		0.003	U	0.005	U	0.026
SEP-2	5/17/01		0.005		0.005	U		0.01	U		2.1		0.003		0.005	U	0.02
SEP-2	7/31/01	0.005	0.005	0.005	U	0.005	U	0.01	U	0.01	U	3.9	0.003	U	0.009	U	0.005
SEP-2	11/16/01	0.011	0.009	0.005	U	0.005	U	0.01	U	0.01	U	0.53	0.003	U	0.006	U	0.005
SEP-2	2/22/02	0.011	0.011	0.005	U	0.005	U	0.01	U	0.01	U	0.54	0.003	U	0.003	U	0.005
SEP-2	5/14/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	1.5	0.003	U	0.003	U	0.005
SEP-2	5/14/02	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	1.4	0.003	U	0.003	U	0.005
SEP-2	8/22/02	0.007	0.007	0.005	U	0.005	U	0.01	U	0.01	U	3.4	0.003	U	0.004	U	0.005
SEP-2	8/22/02	0.007	0.007	0.005	U	0.005	U	0.01	U	0.01	U	3.3	0.003	U	0.003	U	0.005
SEP-2	12/16/02	0.018	0.018	0.005	U	0.005	U	0.01	U	0.01	U	0.34	0.003	U	0.003	U	0.005

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
SEP-2	12/16/02	0.017	0.018	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	8/18/97	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	11/19/97	0.81	0.008	0.008	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	2/13/98	0.53	0.005	0.005	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	5/20/98	0.006	0.005	0.005	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	8/11/98	0.005	0.005	0.005	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	8/11/98	0.007	0.005	0.005	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	5/12/99	0.005	0.005	0.005	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	5/12/99	0.005	0.005	0.005	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	8/20/99	0.005	0.005	0.005	0.01	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	11/1/99	0.006	0.006	0.005	0.005	0.01	0.01	0.025	0.025	0.27	0.27	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	1/31/00	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	1.2	1.2	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	5/9/00	0.007	0.005	0.005	0.005	0.01	0.01	0.025	0.025	1.9	1.9	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	8/14/00	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	6	6	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	11/10/00	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	8.4	8.4	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	2/23/01	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	1.8	1.8	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	5/16/01	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	2.5	2.5	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	8/1/01	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	2.8	2.8	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	8/1/01	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	3.1	3.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	11/16/01	0.007	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.42	0.42	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	2/22/02	0.011	0.012	0.005	0.005	0.01	0.01	0.025	0.025	0.38	0.38	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	5/13/02	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	6	6	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	8/21/02	0.006	0.007	0.005	0.005	0.01	0.01	0.025	0.025	3.4	3.4	0.003	0.003	0.005	0.005	0.02	0.02
SEP-3	11/13/02	0.005	0.006	0.005	0.005	0.01	0.01	0.025	0.025	0.29	0.29	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	8/15/97	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	11/10/97	0.009	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	2/13/98	0.007	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	5/19/98	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	8/20/98	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	11/18/98	0.007	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	2/19/99	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	5/13/99	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	8/20/99	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	11/1/99	0.018	0.018	0.005	0.005	0.01	0.01	0.025	0.025	0.54	0.54	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	2/14/00	0.016	0.016	0.005	0.005	0.01	0.01	0.025	0.025	0.14	0.14	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	5/10/00	0.008	0.008	0.005	0.005	0.01	0.01	0.025	0.025	1.1	1.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	8/21/00	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	1.7	1.7	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	11/15/00	0.019	0.019	0.005	0.005	0.01	0.01	0.025	0.025	1.5	1.5	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	2/28/01	0.008	0.008	0.005	0.005	0.01	0.01	0.025	0.025	2.2	2.2	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	5/17/01	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	1.8	1.8	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	7/31/01	0.005	0.006	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	11/16/01	0.009	0.008	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	2/22/02	0.011	0.012	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	2/22/02	0.012	0.013	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	5/14/02	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	8/22/02	0.007	0.009	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-4	12/16/02	0.022	0.024	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-6	8/18/97	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02
SEP-6	8/20/99	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.46	0.46	0.003	0.003	0.005	0.005	0.02	0.02
SEP-6	8/20/99	0.005	0.005	0.005	0.005	0.01	0.01	0.025	0.025	0.1	0.1	0.003	0.003	0.005	0.005	0.02	0.02

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results
Phase IV RI
El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l		
SEP-6	11/1/99		0.006		0.005	U	0.01	U	0.025	U	0.2	U	0.005	U	0.005	U	0.002	U	
SEP-6	1/31/00		0.005	U	0.005	U	0.01	U	0.025	U	1.2	U	0.005	U	0.005	U	0.02	U	
SEP-6	5/9/00		0.007		0.005	U	0.01	U	0.025	U	2	U	0.004	U	0.005	U	0.027	U	
SEP-6	5/9/00		0.007		0.005	U	0.01	U	0.025	U	19	U	0.003	U	0.005	U	0.022	U	
SEP-6	8/14/00		0.005	U	0.005	U	0.01	U	0.025	U	5.8	U	0.006	U	0.005	U	0.026	U	
SEP-6	11/10/00		0.005	U	0.005	U	0.01	U	0.025	U	7	U	0.005	U	0.005	U	0.03	U	
SEP-6	2/23/01		0.005	U	0.005	U	0.01	U	0.025	U	17	U	0.003	U	0.005	U	0.041	U	
SEP-6	2/23/01		0.005	U	0.005	U	0.01	U	0.025	U	19	U	0.003	U	0.005	U	0.035	U	
SEP-6	5/16/01		0.005	U	0.005	U	0.01	U	0.025	U	27	U	0.003	U	0.005	U	0.02	U	
SEP-6	8/1/01	0.005	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.004	U	0.005	U	0.024	U
SEP-6	11/16/01	0.007	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-6	2/22/02	0.011	0.012	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.034	U
SEP-6	5/13/02	0.005	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-6	8/21/02	0.006	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.024	U
SEP-6	8/21/02	0.006	0.006	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-6	11/13/02	0.005	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-6	11/13/02	0.005	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-7	8/18/97	0.005	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-7	11/10/97	0.009	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-7	2/13/98	0.015	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-7	5/20/98	0.007	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.004	U	0.005	U	0.005	U	0.02	U
SEP-7	8/11/98	0.007	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-7	11/18/98	0.007	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-7	2/19/99	0.006	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-7	5/12/99	0.005	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-7	8/20/99	0.005	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-7	11/1/99		0.007		0.005	U	0.01	U	0.025	U	0.19	U	0.006	U	0.005	U	0.049	U	
SEP-7	1/31/00		0.005	U	0.005	U	0.01	U	0.025	U	1	U	0.004	U	0.005	U	0.04	U	
SEP-7	5/9/00		0.007		0.005	U	0.01	U	0.025	U	2	U	0.006	U	0.005	U	0.03	U	
SEP-7	8/14/00		0.005	U	0.005	U	0.01	U	0.025	U	6.3	U	0.005	U	0.005	U	0.033	U	
SEP-7	11/10/00		0.005	U	0.005	U	0.01	U	0.025	U	8.7	U	0.006	U	0.005	U	0.028	U	
SEP-7	2/23/01		0.005	U	0.005	U	0.01	U	0.025	U	19	U	0.004	U	0.005	U	0.037	U	
SEP-7	5/16/01		0.005	U	0.005	U	0.01	U	0.025	U	22	U	0.003	U	0.005	U	0.02	U	
SEP-7	5/16/01		0.005	U	0.005	U	0.01	U	0.025	U	3.4	U	0.003	U	0.005	U	0.02	U	
SEP-7	7/31/01	0.005	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-7	11/16/01	0.006	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-7	11/16/01	0.006	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-7	2/22/02	0.009	0.01	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-7	5/13/02	0.005	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-7	8/21/02	0.005	0.006	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.024	U
SEP-7	11/13/02	0.005	0.005	0.005	U	0.005	U	0.005	U	0.1	U	0.003	U	0.003	U	0.005	U	0.02	U
SEP-8	8/18/97	0.005	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-9	8/15/97	0.005	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-9	11/10/97	0.011	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-9	2/13/98	0.009	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.03	U
SEP-9	5/19/98	0.005	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.03	U
SEP-9	8/18/98	0.006	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U
SEP-9	11/18/98	0.01	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.034	U
SEP-9	2/19/99	0.009	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.03	U
SEP-9	5/12/99	0.005	0.005	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.005	U	0.02	U

Appendix II

Cumulative List of Groundwater and Surface Water Quality Results Phase IV RI El Paso Asarco Smelter

Sample ID	Sample Date	As Dis mg/l	As T mg/l	Cd Dis mg/l	Cd T mg/l	Cr Dis mg/l	Cr T mg/l	Cu Dis mg/l	Cu T mg/l	Fe Dis mg/l	Fe T mg/l	Pb Dis mg/l	Pb T mg/l	Se Dis mg/l	Se T mg/l	Zn Dis mg/l	Zn T mg/l
SEP-9	8/29/99	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U	0.02	U
SEP-9	11/1/99		0.006		0.005	U	0.01	U	0.025	U	0.17		0.006		0.005	U	0.02
SEP-9	2/14/00		0.008		0.005	U	0.01	U	0.025	U	0.66	J4	0.003	U	0.005	U	0.033
SEP-9	5/19/00		0.011		0.005	U	0.01	U	0.025	U	0.92		0.02b		0.005	U	0.036
SEP-9	8/21/00		0.007		0.005	U	0.01	U	0.025	U	4.6		0.007		0.005	U	0.046
SEP-9	11/15/00		0.01		0.005	U	0.01	U	0.025	U	0.53		0.003	U	0.005	U	0.05
SEP-9	2/23/01		0.006		0.005	U	0.01	U	0.025	U	3		0.003	U	0.005	U	0.029
SEP-9	5/17/01		0.007		0.005	U	0.01	U	0.025	U	1.4		0.001	U	0.005	U	0.025
SEP-9	7/31/01	0.006	0.005	0.005	U	0.005	U	0.01	U	0.025	U	1.3	U	0.003	U	0.005	U
SEP-9	11/16/01	0.008	0.006	0.005	U	0.005	U	0.01	U	0.025	U	0.49	U	0.003	U	0.005	U
SEP-9	2/22/02	0.009	0.01	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U
SEP-9	5/14/02	0.006	0.006	0.005	U	0.005	U	0.01	U	0.025	U	0.1	U	0.003	U	0.005	U
SEP-9	8/22/02	0.008	0.008	0.005	U	0.005	U	0.01	U	0.025	U	2.6	U	0.003	U	0.005	U
SEP-9	12/16/02	0.005	0.005	0.005	U	0.005	U	0.014	U	0.025	U	0.1	U	0.003	U	0.005	U

Note:

- J The associated numerical value is an estimated quantity because quality control criteria were not met
- J2 calibration range exceeded or significant deviation from known values. Possible bias.
- J3 Holding time not met. Indicates low bias.
- J4 Other QC outside control limits

U Undetected. Below method detection limits.

- UJ The material was analyzed for, but was not detected above the associated value.
- UJ1 Blank contamination. Indicates possible high bias and/or false positive.
- UJ2 Calibration range exceeded or significant deviation from known value.
- UJ3 Holding times not met. Indicates low bias.
- UJ4 Other QC outside control limits.

- R Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
- A Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code).

Dis Dissolved Metals

T Total Metals

APPENDIX I

STATISTICAL EVALUATIONS: THE SHAPIRO-WILKS TEST OF NORMALITY AND THE MANN KENDALL TEST FOR TREND

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RI, El Paso Asarco Smelter

n	Total Arsenic					Total Arsenic				
	$X_{(1)}$	$X_{(n+1)}$	$X_{(n+1)} - X_{(1)}$	a_1	b_1	$LN(X_{(1)})$	$LN(X_{(n+1)})$	$LN(X_{(n+1)}) - LN(X_{(1)})$	a_1	b_1
EM-2										
X_1	0.46	1.9	1.44	0.5351	0.756144	-0.776528789	0.641833886	1.418362676	0.5251	0.7447927
X_2	0.46	1.4	0.94	0.3318	0.511892	-0.776528789	0.336472237	1.113001026	0.3318	0.3692937
X_3	0.48	1.1	0.62	0.246	0.13232	-0.73366175	0.09331018	0.829279355	0.246	0.2040027
X_4	0.56	1	0.44	0.1802	0.079288	-0.57981495	0	0.579818495	0.1802	0.1044833
X_5	0.57	0.83	0.26	0.124	0.03224	-0.562110918	-0.186329578	0.37578994	0.124	0.0466979
X_6	0.6	0.8	0.2	0.0727	0.01454	-0.510825624	-0.223143551	0.287682072	0.0727	0.0209145
X_7	0.68	0.74	0.06	0.024	0.00144	-0.38565481	-0.301105093	0.084557388	0.024	0.0020294
X_8	0.74	0.68	-0.06			-0.301105093	-0.385652481	-0.084557388		
X_9	0.8	0.6	-0.2			-0.223143551	-0.510825624	-0.287682072		
X_{10}	0.83	0.57	-0.26			-0.186329578	-0.562118918	-0.37578994		
X_{11}	1	0.56	-0.44			0	-0.579818495	-0.579818495		
X_{12}	1.1	0.48	-0.62			0.09551018	-0.73366175	-0.829279355		
X_{13}	1.4	0.46	-0.94			0.336472237	-0.776528789	-1.113001026		
X_{14}	1.9	0.46	-1.44			0.641833886	-0.776528789	-1.418362676		
X_{15}										
X_{16}										
count (n)	14					14				
Minimum	0.46					-0.776528789				
Maximum	1.9					0.641833886				
average (x)	0.83					-0.28				
SD	0.41					0.43				
$^{(9)}b$	1.3481					1.4971				
$^{(9)}W$	0.82879					0.92979				
$^{(9)}W_{crit}$	0.874					0.874				
Data	Not Normal Distributed					Log Normal Distributed				
	$X_{(1)}$	$X_{(n+1)}$	$X_{(n+1)} - X_{(1)}$	a_1	b_1	$LN(X_{(1)})$	$LN(X_{(n+1)})$	$LN(X_{(n+1)}) - LN(X_{(1)})$	a_1	b_1
EP-106										
X_1	0.005	1.3	1.295	0.5359	0.693905	-5.298317367	0.262354264	5.560681631	0.5359	2.9799693
X_2	0.005	0.049	0.044	0.3325	0.01453	-5.298317367	-3.015934981	2.282382186	0.3325	0.7588821
X_3	0.006	0.037	0.031	0.2412	0.0074772	-5.11599581	-3.296837366	1.819158443	0.2412	0.438781
X_4	0.007	0.019	0.012	0.1707	0.0020184	-4.95184513	-3.9633163	0.99852883	0.1707	0.1704489
X_5	0.007	0.017	0.01	0.1059	0.001099	-4.95184513	-4.074541935	0.887303195	0.1059	0.0975146
X_6	0.014	0.015	0.001	0.0539	0.0000539	-4.268697949	-4.199705078	0.068992871	0.0539	0.0037187
X_7	0.014	0.014	0	0	0	-4.268697949	-4.268697949	0	0	0
X_8	0.015	0.014	-0.001			-4.159705078	-4.268697949	-0.068992871		
X_9	0.017	0.007	-0.01			-4.074541935	-4.96184513	-0.887303195		
X_{10}	0.019	0.007	-0.012			-3.9633163	-4.96184513	-0.99852883		
X_{11}	0.037	0.005	-0.031			-3.296837366	-5.11599581	-1.819158443		
X_{12}	0.049	0.005	-0.044			-3.015934981	-5.298317367	-2.282382186		
X_{13}	1.3	0.005	-1.295			0.262354264	-5.298317367	-5.560681631		
X_{14}										
X_{15}										
X_{16}										
count (n)	13					13				
Minimum	0.005					-5.298317367				
Maximum	1.3					0.262354264				
average (x)	0.12					-4.04				
SD	0.36					1.48				
$^{(9)}b$	0.7153					4.4493				
$^{(9)}W$	0.33065					0.73351				
$^{(9)}W_{crit}$	0.866					0.866				
Data	Not Normal Distributed					Not Log Normal Distributed				

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RI, El Paso Asarco Smelter

Total Arsenic										
$X_i^{(0)}$	$X_i^{(n+1)}$	$X_i^{(n+1)-i(i)}$	$a_i^{(0)}$	$b_i^{(0)}$	$LN[X_i^{(0)}]$	$LN[X_i^{(n+1)}]$	$LN[X_i^{(n+1)-i(i)}]$	$a_i^{(n)}$	$b_i^{(n)}$	
EP-11.6										
X_1	1.5	11	9.5	0.5359	5.09105	0.405465108	2.397895273	1.992430165	0.5475	
X_2	2.3	11	8.7	0.3325	2.89275	0.832509123	2.397895273	1.56498615	0.3325	
X_3	3.1	6.2	3.1	0.2412	0.74772	1.131402113	1.824549292	0.693147181	0.2347	
X_4	3.3	6	2.7	0.1707	0.46389	1.19522458	1.791755469	0.597837001	0.1586	
X_5	4.7	5.6	0.9	0.1099	0.09891	1.547562509	1.722766598	0.17526489	0.0922	
X_6	4.9	5.3	0.4	0.0539	0.02156	1.589232205	1.667706821	0.078471615	0.0903	
X_7	5.1	5.1	0	0	0	1.62924054	1.62924054	0		
X_8	5.3	4.9	-0.4			1.667706821	1.589232205	-0.078471615		
X_9	5.6	4.7	-0.9			1.722766598	1.547562509	-0.17526489		
X_{10}	6	3.3	-2.7			1.791755469	1.19522458	-0.597837001		
X_{11}	6.2	3.1	-3.1			1.824549292	1.131402113	-0.693147181		
X_{12}	11	2.3	-8.7			2.397895273	0.832509123	-1.56498615		
X_{13}	11	1.5	-9.5							
X_{14}										
X_{15}										
X_{16}										
count (i)	13					12				
Minimum	1.5					0.405465108				
Maximum	11					2.397895273				
average (x)	5.38					1.48				
SD	2.87					0.52				
$(9) b$	9.3129					1.8872				
$(9) W$	0.87502					1.20001				
$(9) W_{0.05, 1}$	0.866					0.866				
Data	Normal Distributed					Log Normal Distributed				
$X_i^{(0)}$	$X_i^{(n+1)}$	$X_i^{(n+1)-i(i)}$	$a_i^{(0)}$	$b_i^{(0)}$	$LN[X_i^{(0)}]$	$LN[X_i^{(n+1)}]$	$LN[X_i^{(n+1)-i(i)}]$	$a_i^{(n)}$	$b_i^{(n)}$	
EP-14										
X_1	1.3	2.3	1	0.5251	0.5251	0.262364264	0.832909123	0.570544858	0.5251	
X_2	1.3	2.1	0.8	0.3318	0.3318	0.262364264	0.741937345	0.47957208	0.3318	
X_3	1.4	1.7	0.3	0.246	0.0738	0.336472237	0.530628231	0.194156014	0.246	
X_4	1.4	1.6	0.2	0.1802	0.03604	0.336472237	0.47003629	0.133531393	0.1802	
X_5	1.4	1.6	0.2	0.124	0.0248	0.336472237	0.47003629	0.133531393	0.124	
X_6	1.4	1.6	0.2	0.0727	0.01454	0.336472237	0.47003629	0.133531393	0.0727	
X_7	1.5	1.5	0	0.024	0	0.405465108	0.405465108	0	0.024	
X_8	1.5	1.5	0			0.405465108	0.405465108	0		
X_9	1.6	1.4	-0.2			0.470003629	0.335472237	-0.133531393		
X_{10}	1.6	1.4	-0.2			0.470003629	0.335472237	-0.133531393		
X_{11}	1.6	1.4	-0.2			0.470003629	0.335472237	-0.133531393		
X_{12}	1.7	1.4	-0.3			0.530628231	0.336472237	-0.194156014		
X_{13}	2.1	1.3	-0.8			0.741937345	0.262364264	-0.47957208		
X_{14}	2.3	1.3	-1			0.832909123	0.262364264	-0.570544858		
X_{15}										
X_{16}										
count (n)	14					14				
Minimum	1.3					0.262364264				
Maximum	2.3					0.832909123				
average (x)	1.58					0.44				
SD	0.29					0.17				
$(9) b$	9.9397					0.5568				
$(9) W$	0.80020					0.85004				
$(9) W_{0.05, 1}$	0.874					0.874				
Data	Not Normal Distributed					Not Log Normal Distributed				

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RI, El Paso Asarco Smelter

Total Arsenic					Total Arsenic					
x_i	$x_i - \bar{x}$	x_i^2	$x_i(x_i - \bar{x})$	a_i	b_i	$\ln(x_i)$	$\ln(x_i - \bar{x})$	$\ln(x_i + \bar{x})$	a_i	b_i
EP-25										
x_1	0.65	11	10.35	0.5251	5.434783	-0.430782916	2.397892273	2.828678189	0.5251	1.483389
x_2	0.96	9.4	8.44	0.3318	2.800392	-0.040831993	2.240709689	2.281531684	0.3318	0.7570122
x_3	1.1	8.6	7.5	0.246	1.845	0.09331018	2.151762203	2.054432023	0.246	0.503872
x_4	1.2	7	5.8	0.1802	1.04516	0.182321557	1.965910149	1.765388592	0.1802	0.3177987
x_5	1.3	5.2	3.9	0.124	0.4836	0.262364264	1.648658626	1.386294361	0.124	0.1719005
x_6	1.4	4.7	3.3	0.0727	0.23991	0.336472237	1.547562509	1.211090272	0.0727	0.0880463
x_7	2.6	3.1	0.5	0.024	0.012	0.955511445	1.31402111	0.17890666	0.024	0.0042214
x_8	3.1	2.6	-0.5			1.131402111	0.955511445	-0.17589666		
x_9	4.7	1.4	-3.3			1.547562509	0.336472237	-1.211090272		
x_{10}	5.2	1.3	-3.9			1.648658626	0.262364264	-1.386294361		
x_{11}	7	1.2	-5.8			1.965910149	0.182321557	-1.765388592		
x_{12}	8.6	1.1	-7.5			2.151762203	0.09331018	-2.054432023		
x_{13}	9.4	0.96	-8.44			2.240709689	-0.040831993	-2.281531684		
x_{14}	11	0.65	-10.35			2.397892273	-0.430782916	-2.828678189		
x_{15}										
x_{16}										
count (n)	14					14				
Minimum	0.65					-0.430782916				
Maximum	11					2.397892273				
average (x)	4.16					1.03				
SD	3.55					0.95				
σ_b	11.8608					3.3302				
σ_w	0.86077					0.92084				
σ_w	0.874					0.874				
Data Not Normal Distributed										
z_i	z_i	z_i	z_i	a_i	b_i	$\ln(x_i)$	$\ln(x_i - \bar{x})$	$\ln(x_i + \bar{x})$	a_i	b_i
EP-25										
x_1	1.1	38	36.9	0.5251	19.37619	0.09331018	1.63758616	3.54227598	0.5251	1.860091
x_2	4	18	14	0.3318	4.6452	1.386294361	2.860371258	1.504077397	0.3318	0.4990529
x_3	4.8	15	10.2	0.246	2.5092	1.568615918	2.708652001	1.139434283	0.246	0.2803068
x_4	6.5	12	5.5	0.1802	0.9911	1.871802177	2.43490665	0.613104473	0.1802	0.1104814
x_5	7.4	11	3.6	0.124	0.4464	2.00148	2.397892273	0.396415273	0.124	0.0491555
x_6	7.8	11	3.2	0.0727	0.23264	2.054123734	2.397892273	0.343771539	0.0727	0.0249222
x_7	8	10	2	0.024	0.018	2.079414542	2.3028505	0.223143551	0.024	0.0059554
x_8	10	8	-2			2.3028505	2.079414542	-0.223143551		
x_9	11	7.8	-3.2			2.397892273	2.054123734	-0.343771539		
x_{10}	11	7.4	-3.6			2.397892273	2.00148	-0.396415273		
x_{11}	12	6.5	-5.5			2.48490665	1.871802177	-0.613104473		
x_{12}	15	4.8	-10.2			2.708652001	1.568615918	-1.139434283		
x_{13}	18	4	-14			2.890371258	1.386294361	-1.504077397		
x_{14}	38	1.1	-36.9			3.63758616	0.09331018	-3.54227598		
x_{15}										
x_{16}										
count (n)	14					14				
Minimum	1.1					0.09331018				
Maximum	38					3.63758616				
average (x)	11.04					2.13				
SD	8.92					0.81				
σ_b	28.2487					2.8294				
σ_w	0.77185					0.9261				
σ_w	0.874					0.874				
Data Not Normal Distributed										
Log Normal Distributed										

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RI, El Paso Asarco Smelter

Total Arsenic					Total Arsenic				
$x_i^{(1)}$	$x_i^{(n+1)}$	$x_i^{(n+1)} - x_i^{(1)}$	$a_i^{(1)}$	$b_i^{(1)}$	$LN(x_i^{(1)})$	$LN(x_i^{(n+1)})$	$LN(x_i^{(n+1)}) - LN(x_i^{(1)})$	$a_i^{(1)}$	$b_i^{(1)}$
EP-49					EP-49				
X_1	0.83	221	220.17	0.5475	120.54308	-0.18632578	5.398162702	5.58449228	0.5475
X_2	11	42	31	0.3325	10.5075	2.297895273	3.737669618	1.339774345	0.3325
X_3	15	40	25	0.2347	5.8675	2.708050201	3.688879454	0.980829253	0.2347
X_4	17	34	17	0.1586	2.6962	2.83213344	3.526360525	0.693147181	0.1586
X_5	18	33	15	0.0922	1.383	2.890371758	3.496507561	0.606135804	0.0922
X_6	18	26	8	0.0303	0.2424	2.890371758	3.258096538	0.35772478	0.0303
X_7	26	18	-8			3.258096538	2.890371758	-0.36772478	
X_8	33	18	-15			3.496507561	2.890371758	-0.606135804	
X_9	34	17	-17			3.526360525	2.83213344	-0.693147181	
X_{10}	40	15	-25			3.688879454	2.708050201	-0.980829253	
X_{11}	42	11	-31			3.737669618	2.297895273	-1.339774345	
X_{12}	221	0.83	-220.17			5.398162702	-0.18632578	-5.58449228	
X_{13}									
X_{14}									
X_{15}									
X_{16}									
count (n)	12					12			
Minimum	0.83					-0.18632578			
Maximum	221					5.398162702			
average (x)	39.65					3.05			
SD	58.42					1.28			
$b^{(1)}$	14.0397					3.9101			
$W^{(1)}$	0.52987					0.85043			
$W^{(1)}$	0.859					0.859			
Delta Not Normal Distributed					Not Log Normal Distributed				
$x_i^{(1)}$	$x_i^{(n+1)}$	$x_i^{(n+1)} - x_i^{(1)}$	$a_i^{(1)}$	$b_i^{(1)}$	$LN(x_i^{(1)})$	$LN(x_i^{(n+1)})$	$LN(x_i^{(n+1)}) - LN(x_i^{(1)})$	$a_i^{(1)}$	$b_i^{(1)}$
EP-51					EP-51				
X_1	0.22	1.2	0.98	0.5251	0.514398	-1.514127733	0.183231557	1.696449289	0.5251
X_2	0.25	0.97	0.72	0.3318	0.238896	-1.386294361	-0.030459207	1.355835154	0.3318
X_3	0.27	0.75	0.48	0.246	0.11808	-1.30933332	-0.287682072	1.021651248	0.246
X_4	0.29	0.56	0.27	0.1802	0.048654	-1.237874356	-0.579818495	0.65805561	0.1802
X_5	0.3	0.48	0.18	0.124	0.02232	-1.203872804	-0.731969175	0.470003629	0.124
X_6	0.34	0.37	0.03	0.0727	0.002181	-1.078809651	-0.994252273	0.08457388	0.0727
X_7	0.37	0.37	0	0.024	0	-0.994252273	-0.994252273	0	0.024
X_8	0.37	0.37	0			-0.994252273	-0.994252273		
X_9	0.37	0.34	-0.03			-0.994252273	-1.078809651	-0.08457388	
X_{10}	0.48	0.3	-0.18			-0.733569175	-1.203872804	-0.470003629	
X_{11}	0.56	0.29	-0.27			-0.579818495	-1.237874356	-0.65805561	
X_{12}	0.75	0.27	-0.48			-0.287682072	-1.30933332	-1.021651248	
X_{13}	0.97	0.25	-0.72			-0.030459207	-1.386294361	-1.355835154	
X_{14}	1.2	0.22	-0.98			0.183231557	-1.514127733	-1.696449289	
X_{15}									
X_{16}									
count (n)	14					14			
Minimum	0.22					-1.514127733			
Maximum	1.2					0.183231557			
average (x)	0.48					-0.37			
SD	0.29					0.52			
$b^{(1)}$	0.9447					1.7750			
$W^{(1)}$	0.79210					0.90921			
$W^{(1)}$	0.874					0.874			
Delta Not Normal Distributed					Log Normal Distributed				

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RI, El Paso Asarco Smelter

Total Arsenic						Total Arsenic					
	$X_{(i)}$ ^(a)	$X_{(n+1)}$ ^(a)	$X_{(n+1)} - X_{(i)}$	a_i ^(b)	b_j ^(b)	$X_{(i)}$ ^(a)	$X_{(n+1)}$ ^(a)	$X_{(n+1)} - X_{(i)}$	a_i ^(b)	b_j ^(b)	
EM-5						EP-11					
X_1	1	2.6	1.6	0.5251	0.84016	0.83	1.2	0.37	0.5475	0.202575	
X_2	1	2.4	1.4	0.3318	0.46452	0.91	1.1	0.19	0.3325	0.063175	
X_3	1.2	2.3	1.1	0.296	0.2705	0.93	1.1	0.17	0.2347	0.039899	
X_4	1.2	2.3	1.1	0.1802	0.19822	0.95	1.1	0.15	0.1385	0.02379	
X_5	1.5	1.8	0.3	0.124	0.0372	0.95	0.98	0.03	0.0922	0.002766	
X_6	1.5	1.7	0.2	0.0727	0.01454	0.97	0.97	0	0.0303	0	
X_7	1.5	1.6	0.1	0.024	0.0024	0.97	0.97	0			
X_8	1.6	1.5	-0.1			0.98	0.95	-0.03			
X_9	1.7	1.5	-0.2			1.1	0.95	-0.15			
X_{10}	1.8	1.5	-0.3			1.1	0.93	-0.17			
X_{11}	2.3	1.2	-1.1	-1.1		1.1	0.91	-0.19			
X_{12}	2.3	1.2	-1.1	-1.1		1.2	0.83	-0.37			
X_{13}	2.4	1	-1.4								
X_{14}	2.6	1	-1.6								
X_{15}											
X_{16}											
count (n)	14					12					
Minimum	1					0.83					
Maximum	2.6					1.2					
average (x)	1.69					1.00					
SD	0.53					0.10					
^(b) b	1.8276					0.3322					
^(b) W	0.91838					0.92668					
^(b) W _{acc}	0.871					0.866					
Normal Distributed						Normal Distributed					
Data	$X_{(i)}$ ^(a)	$X_{(n+1)}$ ^(a)	$X_{(n+1)} - X_{(i)}$	a_i ^(b)	b_j ^(b)	$X_{(i)}$ ^(a)	$X_{(n+1)}$ ^(a)	$X_{(n+1)} - X_{(i)}$	a_i ^(b)	b_j ^(b)	
EP-11.4						EP-12					
X_1	118	323	205	0.5475	112.2375	0.72	3.3	2.58	0.5251	1.354758	
X_2	203	320	117	0.3325	38.9025	0.83	2.3	1.47	0.3318	0.487746	
X_3	214	316	102	0.2347	23.9394	0.89	2.1	1.21	0.236	0.29766	
X_4	240	301	61	0.1586	9.6746	0.92	2	1.08	0.1802	0.196616	
X_5	250	292	42	0.0922	3.8724	0.96	2	1.04	0.124	0.12896	
X_6	280	290	10	0.0303	0.303	1.2	1.8	0.6	0.0727	0.04362	
X_7	290	280	-10			1.3	1.4	0.1	0.024	0.0024	
X_8	292	250	-42			1.4	1.3	-0.1			
X_9	301	240	-61			1.8	1.2	-0.6			
X_{10}	316	214	-102			2	0.96	-1.04			
X_{11}	320	203	-117			2	0.92	-1.08			
X_{12}	323	118	-205			2.1	0.89	-1.21			
X_{13}						2.3	0.83	-1.47			
X_{14}						3.3	0.72	-2.58			
X_{15}											
X_{16}											
count (n)	12					14					
Minimum	118					0.72					
Maximum	323					3.3					
average (x)	262.25					1.55					
SD	60.31					0.73					
^(b) b	181.9294					2.5098					
^(b) W	0.87748					0.90108					
^(b) W _{acc}	0.866					0.874					
Data	Normal Distributed					Normal Distributed					

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RI, El Paso Asarco Smelter

Total Arsenic									
X_i	$X_{(n+1)}$	$X_{(n+1)} - X_i$	a_i	b_i	X_i	$X_{(n+1)}$	$X_{(n+1)} - X_i$	a_i	b_i
EP-13									
X_1	1.6	38	36.4	0.5251	19.11364	1.5	2.3	0.8	0.19864
X_2	17	34	17	0.3318	5.6465	1.8	2	0.2	0.06062
X_3	22	32	10	0.246	2.46	1.8	2	0.2	0.1401
X_4	23	31	8	0.1802	1.4416	2	2	0	0.02802
X_5	25	31	6	0.124	0.744	2	1.8	-0.2	
X_6	26	30	4	0.0727	0.2908	2	1.8	-0.2	
X_7	28	29	1	0.024	0.024	2.3	1.5	-0.8	
X_8	29	28	-1						
X_9	30	26	-4						
X_{10}	31	25	-6						
X_{11}	31	23	-8						
X_{12}	32	22	-10						
X_{13}	34	17	-17						
X_{14}	38	1.6	-36.4						
X_{15}									
count (n)	14					7			
Minimum	1.6					1.5			
Maximum	38					2.3			
average (x)	26.26					1.91			
SD	8.88					0.25			
W	0.86190					0.5873			
$W_{0.05}$	0.803					0.93377			
Data	Normal Distributed				Normal Distributed				
X_i	$X_{(n+1)}$	$X_{(n+1)} - X_i$	a_i	b_i	X_i	$X_{(n+1)}$	$X_{(n+1)} - X_i$	a_i	b_i
EP-20									
X_1	0.75	1.4	0.65	0.3251	0.341315	1.2	5.8	4.6	0.5475
X_2	0.76	1.4	0.64	0.3318	0.212352	1.2	5.2	4	0.3325
X_3	0.76	1.3	0.54	0.246	0.13284	1.5	4	2.5	0.2347
X_4	0.86	1.2	0.34	0.1802	0.051288	2.6	3.9	1.3	0.1586
X_5	0.93	1.1	0.17	0.124	0.02108	3.4	3.8	0.4	0.0922
X_6	0.96	1.1	0.14	0.0727	0.010178	3	3.8	0.8	0.02424
X_7	0.97	0.98	0.01	0.024	0.00074	3.9	3.4	-0.5	
X_8	0.98	0.97	-0.01			3.8	3	-0.8	
X_9	1.1	0.96	-0.14			3.8	2.6	-1.2	
X_{10}	1.1	0.93	-0.17			4	1.5	-2.5	
X_{11}	1.2	0.86	-0.34			5.2	1.2	-4	
X_{12}	1.3	0.76	-0.54			5.8	1.2	-4.6	
X_{13}	1.4	0.76	-0.64						
X_{14}	1.4	0.75	-0.65						
X_{15}									
count (n)	14					12			
Minimum	0.75					1.2			
Maximum	1.4					5.8			
average (x)	1.03					3.28			
SD	0.23					1.47			
W	0.7793					4.7076			
$W_{0.05}$	0.92105					0.92695			
$W_{0.05}$	0.874					0.859			
Data	Normal Distributed				Normal Distributed				

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RI, El Paso Asarco Smelter

	Total Arsenic					Total Arsenic				
	$X_{(i)}$	$X_{(i+1)}$	$X_{(i+2)}$	$X_{(i+3)}$	$X_{(i+4)}$	$X_{(i)}$	$X_{(i+1)}$	$X_{(i+2)}$	$X_{(i+3)}$	$X_{(i+4)}$
EP-53										
X_1	18	55	37	0.3251	19.4287	20	57	37	0.5251	19.4287
X_2	22	49	27	0.3318	8.9586	24	49	25	0.3318	8.295
X_3	22	45	23	0.246	5.558	25	45	20	0.246	4.92
X_4	22	42	19	0.1802	3.4238	26	42	16	0.1802	2.8332
X_5	27	37	10	0.124	1.24	26	37	11	0.124	1.364
X_6	32	35	3	0.0727	0.2181	27	37	10	0.0727	0.727
X_7	32	35	3	0.024	0.072	34	37	3	0.024	0.072
X_8	35	32	-3			37	34	-3		
X_9	35	32	-3			37	27	-10		
X_{10}	37	27	-10			37	26	-11		
X_{11}	42	23	-19			42	26	-16		
X_{12}	45	22	-23			45	25	-20		
X_{13}	49	22	-27			49	24	-25		
X_{14}	55	18	-37			57	20	-37		
X_{15}										
X_{16}										
count (n)	14					14				
Minimum	18					20				
Maximum	55					57				
average (x)	33.86					34.71				
SD	11.04					10.79				
σ_b	38.9992					37.6899				
σ_W	0.96036					0.95897				
σ_W	0.874					0.874				
Normal Distributed										
Data	$X_{(i)}$	$X_{(i+1)}$	$X_{(i+2)}$	$X_{(i+3)}$	$X_{(i+4)}$	$X_{(i)}$	$X_{(i+1)}$	$X_{(i+2)}$	$X_{(i+3)}$	$X_{(i+4)}$
EP-55										
X_1	29	92	63	0.5888	37.0544	0.33	3.3	2.57	0.5251	1.559547
X_2	36	63	27	0.3244	8.7588	1.2	3.1	1.9	0.3318	0.62042
X_3	51	63	12	0.1976	2.3712	1.4	3	1.6	0.246	0.3936
X_4	54	60	6	0.0947	0.5682	2.1	3	0.9	0.1802	0.16218
X_5	54	54	0	0	0	2.2	3	0.8	0.124	0.0992
X_6	60	54	-6			2.4	2.7	0.3	0.0727	0.02181
X_7	63	51	-12			2.5	2.7	0.2	0.024	0.0048
X_8	63	36	-27			2.7	2.5	-0.2		
X_9	92	29	-63			2.7	2.4	-0.3		
X_{10}						3	2.2	-0.8		
X_{11}						3	2.1	-0.9		
X_{12}						3	1.4	-1.6		
X_{13}						3.1	1.2	-1.9		
X_{14}						3.3	0.33	-2.97		
X_{15}										
X_{16}										
count (n)	9					14				
Minimum	29					0.33				
Maximum	92					3.3				
average (x)	55.78					2.35				
SD	17.93					0.85				
σ_b	48.7926					2.8716				
σ_W	0.95579					0.87789				
σ_W	0.829					0.874				
Data	Normal Distributed					Normal Distributed				

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RL El Paso Asarco Smelter

Total Arsenic						Total Arsenic					
X_i	$X_i - \bar{X}$	$X_i - \bar{X} + 1$	a_i	b_i		X_i	$X_i - \bar{X}$	$X_i - \bar{X} + 1$	a_i	b_i	
EP-57						EP-59					
X_1	0.058	0.5	0.442	0.5359	0.2368678	1.9	2.9	1	0.5251	0.5251	
X_2	0.083	0.43	0.347	0.3325	0.1153775	2	2.7	0.7	0.3318	0.23226	
X_3	0.23	0.41	0.18	0.2412	0.043416	2	2.6	0.6	0.246	0.1476	
X_4	0.25	0.39	0.14	0.1707	0.021898	2	2.5	0.5	0.1802	0.0901	
X_5	0.29	0.38	0.09	0.1099	0.009891	2.2	2.5	0.3	0.124	0.0372	
X_6	0.32	0.37	0.05	0.0339	0.002693	2.3	2.4	0.1	0.0727	0.00727	
X_7	0.35	0.35	0	0	0	2.3	2.4	0.1	0.024	0.0024	
X_8	0.37	0.32	-0.05			2.4	2.3	-0.1			
X_9	0.38	0.29	-0.09			2.4	2.3	-0.1			
X_{10}	0.39	0.25	-0.14			2.5	2.2	-0.3			
X_{11}	0.41	0.23	-0.18			2.5	2	-0.5			
X_{12}	0.43	0.083	-0.347			2.5	2	-0.6			
X_{13}	0.5	0.058	-0.442			2.7	2	-0.7			
X_{14}						2.9	1.9	-1			
X_{15}											
count (n)	13					14					
Minimum	0.058					1.9					
Maximum	0.5					2.9					
average (\bar{x})	0.31					2.34					
SD	0.13					0.30					
$(b) \bar{b}$	0.4321					1.0419					
$(b) W$	0.92241					0.99891					
$(b) W_{0.05}$	0.866					0.874					
Data Normal Distributed						Normal Distributed					
X_i	$X_i - \bar{X}$	$X_i - \bar{X} + 1$	a_i	b_i		X_i	$X_i - \bar{X}$	$X_i - \bar{X} + 1$	a_i	b_i	
EP-62						EP-70					
X_1	0.56	1.7	1.14	0.5251	0.598614	0.56	0.96	0.4	0.5159	0.21436	
X_2	0.75	1.5	0.75	0.3318	0.24885	0.56	0.93	0.37	0.3125	0.123025	
X_3	0.82	1.5	0.68	0.246	0.16728	0.57	0.84	0.27	0.2412	0.055124	
X_4	0.87	1.4	0.53	0.1802	0.095506	0.59	0.81	0.22	0.1707	0.07554	
X_5	1.1	1.3	0.2	0.124	0.0248	0.6	0.8	0.2	0.1099	0.07198	
X_6	1.1	1.2	0.1	0.0727	0.00727	0.63	0.75	0.12	0.0539	0.036468	
X_7	1.1	1.2	0.1	0.024	0.0024	0.73	0.73	0	0	0	
X_8	1.2	1.1	-0.1			0.75	0.63	-0.12			
X_9	1.2	1.1	-0.1			0.8	0.6	-0.2			
X_{10}	1.3	1.1	-0.2			0.81	0.59	-0.22			
X_{11}	1.4	0.87	-0.53			0.84	0.57	-0.27			
X_{12}	1.5	0.82	-0.68			0.93	0.56	-0.37			
X_{13}	1.5	0.75	-0.75			0.96	0.56	-0.4			
X_{14}	1.7	0.56	-1.14								
X_{15}											
count (n)	14					13					
Minimum	0.56					0.56					
Maximum	1.7					0.96					
average (\bar{x})	1.15					0.72					
SD	0.32					0.14					
$(b) \bar{b}$	1.1447					0.4685					
$(b) W$	0.9761					0.89728					
$(b) W_{0.05}$	0.874					0.866					
Data Normal Distributed						Normal Distributed					

Appendix I

Statistical Evaluation: Shapiro Wilk Test of Normality (Total Arsenic) Phase IV RI, El Paso Asarco Smelter

Total Arsenic									
	$x^{(i)}$	$x^{(i+1)}$	$x^{(i+2)}$	$x^{(i)} - x^{(i)}$	$a_i^{(i)}$	$b_i^{(i)}$		$x^{(i)}$	$x^{(i+1)}$
EP-75									
X_1	9.4	18	8.6		0.5251	4.51586		0.37	1.5
X_2	11	18	7		0.3318	2.3326		0.51	1.4
X_3	13	17	4		0.246	0.984		0.76	1.3
X_4	14	17	3		0.1802	0.5406		0.87	1.3
X_5	14	17	3		0.124	0.372		0.92	1.1
X_6	15	16	1		0.0727	0.0727		0.92	1
X_7	16	16	0		0.024	0		1	0.92
X_8	16	16	0					1.1	0.92
X_9	16	15	-1					1.3	0.87
X_{10}	17	14	-3					1.3	0.76
X_{11}	17	14	-3					1.4	0.51
X_{12}	17	13	-4					1.5	0.37
X_{13}	18	11	-7						
X_{14}	18	9.4	-8.6						
X_{15}									
X_{16}									
count (n)	14							12	
Minimum	9.4							0.37	
Maximum	18							1.5	
average (x)	15.10							1.10	
SD	2.58							0.35	
$^{(b)}b$	8.3078							1.1286	
$^{(c)}W$	0.89575							0.96190	
$^{(d)}W_{adj}$	0.874							0.859	
Normal Distributed									
Date									
	$x^{(i)}$	$x^{(i+1)}$	$x^{(i+2)}$	$x^{(i)} - x^{(i)}$	$a_i^{(i)}$	$b_i^{(i)}$		$x^{(i)}$	$x^{(i+1)}$
EP-78									
X_1	3	5.2	2.2		0.5251	1.15522		1.5	2.6
X_2	1.5	4.8	1.3		0.3318	0.43154		1.7	2.6
X_3	3.5	4.6	1.1		0.246	0.2705		1.8	2.5
X_4	3.6	4.1	0.5		0.1802	0.0901		2	2.4
X_5	3.6	4	0.4		0.124	0.0486		2.1	2.3
X_6	3.7	3.9	0.2		0.0727	0.01454		2.2	2.3
X_7	3.7	3.8	0.1		0.024	0.0024		2.2	2.2
X_8	3.8	3.7	-0.1					2.2	2.2
X_9	3.9	3.7	-0.2					2.3	2.2
X_{10}	4	3.6	-0.4					2.3	2.1
X_{11}	4.1	3.6	-0.5					2.4	2
X_{12}	4.6	3.5	-1.1					2.5	1.8
X_{13}	4.8	3.5	-1.3					2.6	1.7
X_{14}	5.2	3	-2.2					2.6	1.5
X_{15}									
X_{16}									
count (n)	14							14	
Minimum	3							1.5	
Maximum	5.2							2.6	
average (x)	3.93							2.17	
SD	0.38							0.33	
$^{(b)}b$	2.0138							1.1526	
$^{(c)}W$	0.91573							0.94311	
$^{(d)}W_{adj}$	0.874							0.874	
Normal Distributed									
Date									
	$x^{(i)}$	$x^{(i+1)}$	$x^{(i+2)}$	$x^{(i)} - x^{(i)}$	$a_i^{(i)}$	$b_i^{(i)}$		$x^{(i)}$	$x^{(i+1)}$
EP-85									
X_1	3	5.2	2.2		0.5251	1.15522		1.5	2.6
X_2	1.5	4.8	1.3		0.3318	0.43154		1.7	2.6
X_3	3.5	4.6	1.1		0.246	0.2705		1.8	2.5
X_4	3.6	4.1	0.5		0.1802	0.0901		2	2.4
X_5	3.6	4	0.4		0.124	0.0486		2.1	2.3
X_6	3.7	3.9	0.2		0.0727	0.01454		2.2	2.3
X_7	3.7	3.8	0.1		0.024	0.0024		2.2	2.2
X_8	3.8	3.7	-0.1					2.2	2.2
X_9	3.9	3.7	-0.2					2.3	2.2
X_{10}	4	3.6	-0.4					2.3	2.1
X_{11}	4.1	3.6	-0.5					2.4	2
X_{12}	4.6	3.5	-1.1					2.5	1.8
X_{13}	4.8	3.5	-1.3					2.6	1.7
X_{14}	5.2	3	-2.2					2.6	1.5
X_{15}									
X_{16}									
count (n)	14							14	
Minimum	3							1.5	
Maximum	5.2							2.6	
average (x)	3.93							2.17	
SD	0.38							0.33	
$^{(b)}b$	2.0138							1.1526	
$^{(c)}W$	0.91573							0.94311	
$^{(d)}W_{adj}$	0.874							0.874	
Normal Distributed									
Date									