MS Suppl.

Report

**Uranium Hydrogeochemical and Stream Sediment
Reconnaissance of the
Trinidad NTMS Quadrangle, Colorado,
Including Concentrations of
Forty-Two Additional Elements**

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Grand Junction Office, Colorado

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By

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Supplement to LA-7345-MS, October 1978

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URANIUM HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE
OF THE TRINIDAD NTMS QUADRANGLE, COLORADO,
INCLUDING CONCENTRATIONS OF FORTY-TWO ADDITIONAL ELEMENTS

by

Spencer S. Shannon, Jr.

SUMMARY

Uranium and other elemental data resulting from the Hydrogeochemical and Stream Sediment Reconnaissance (HSSR) of the Trinidad National Topographic Map Series (NTMS) quadrangle, Colorado, by the Los Alamos Scientific Laboratory (LASL) are reported herein. The LASL is responsible for conducting the HSSR primarily in the states of New Mexico, Colorado, Wyoming, Montana, and Alaska. This study was conducted as part of the United States Department of Energy's National Uranium Resource Evaluation (NURE), which is designed to provide improved estimates of the availability and economics of nuclear fuel resources and to make available to industry information for use in exploration and development of uranium resources. The HSSR data will ultimately be integrated with other NURE data (e.g., airborne radiometric surveys and geological investigations) to complete the entire NURE program.

This report is a supplement to the HSSR uranium evaluation report for the Trinidad quadrangle (Morris et al, 1978), which presented the field and uranium data for the 1060 water and 1240 sediment samples collected from 1768 locations in the quadrangle. The earlier report contains an evaluation of the uranium concentrations of the samples as well as descriptions of the geology, hydrology, climate, and uranium occurrences of the quadrangle (Fig. 1). This supplement presents the sediment field and uranium data again and the analyses of 42 other elements in the sediments (Appendix I). All uranium samples were redetermined by delayed-neutron counting (DNC) when the sediment samples were analyzed for 31 elements by neutron activation. For 99.6% of the sediment samples analyzed, the differences between the uranium contents first determined (Morris et al, 1978) and the analyses reported herein are less than 10%. The data presented in Appendix I are available on magnetic tape from: GJOIS Project, UCC-ND, Computer Applications Department, 4500 North Building, Oak Ridge National Laboratory, P. O. Box X, Oak Ridge, Tennessee 37830. A supplemental report that includes results of analyses for several elements in the water samples from this quadrangle is planned to be released in the future.

The sediment samples were analyzed for beryllium and lithium by arc-source emission spectrography, for bismuth, cadmium, copper, lead, nickel, niobium, silver, tin, and tungsten by x-ray fluorescence, and for aluminum, antimony, barium, calcium, cerium, cesium, chlorine, chromium, cobalt, dysprosium, europium, gold, hafnium, iron, lanthanum, lutetium, magnesium, manganese, potassium, rubidium, samarium, scandium, sodium, strontium, tantalum, terbium,

Fig. 1. Index map of the Trinidad NTMS quadrangle, Colorado.

thorium, titanium, vanadium, ytterbium, and zinc by neutron activation analysis (NAA). Standardized field, analytical, and data base management procedures were used in all phases of this study; they are described in detail in Appendix II-A. Appendixes II-B and II-C explain the codes used in these data listings.

No evaluation of the multielement data is presented herein. However, uranium to thorium ratios (Appendix I), histograms of the thorium concentrations in sediments (Fig. 2), a sample location overlay (Plate I, which is identical to Plate I of the previous Trinidad report), and a thorium concentration overlay for sediments (Plate II) are included to assist in the evaluation of the uranium resources of the Trinidad quadrangle. These plates are 1:250 000 scale and can be used with the uranium concentration overlays in the initial Trinidad uranium report (Morris et al, 1978) and the topographic map (US Geological Survey, 1955) and the geologic map (Johnson, 1969) of the Trinidad quadrangle.

ACKNOWLEDGMENTS

The support and assistance of the following LASL groups and individuals are gratefully acknowledged. The x-ray fluorescence and emission spectrometry of sediment samples were performed by the Analytical Chemistry Group, CMB-1. The DNC and NAA of the sediments were performed by the Research Reactor Group, P-2. The Statistics Group, S-1, was responsible for the data management and computer graphics. Several members of the Geosciences Division were instrumental in producing this report: Patricia R. O'Rourke typed and edited the text, John A. Paskiewicz prepared the illustrations, and Richard G. Warren reviewed the manuscript. Sincere appreciation is also expressed to the landowners and US Forest Service personnel who granted access to the lands under their control so that the survey could be completed.

Fig. 2 a. Histograms and statistical data for thorium concentrations in sediment samples from the Trinidad NTMS quadrangle, Colorado.

a. Dry artificial pond sediments

b. Wet artificial pond sediments

c. Wet natural pond sediments

Fig. 2 b. Histograms and statistical data for thorium concentrations in sediment samples from the Trinidad NTMS quadrangle, Colorado.

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APPENDIX I

LISTING OF FIELD DATA AND ELEMENTAL CONCENTRATIONS FOR SEDIMENT SAMPLES FROM THE TRINIDAD NTMS QUADRANGLE, COLORADO (Pages 8 through 107)

Note that four pages, numbered ① through ④ in the upper right hand corner, are necessary to provide the complete data listing for each numerically ordered sequence of samples.

- ① - Lists field data and uranium concentrations determined by delayed-neutron counting.
- ② - Lists concentrations of 11 elements determined by x-ray fluorescence and arc-source emission spectrography.
- ③ and ④ - list concentrations of 31 elements determined by neutron activation analysis and computed U/Th ratios.

(See Appendix II for Code to Listings)

DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																					U CONCENTRATION							
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	TIME SAMP. ED.		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (c.p.m.)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																										
08-37.2897-104.3297-2-15-						0-C28001-10/03/77-19-			10-							110-1-1-4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.78	
08-37.2881-104.3253-2-15-						0-C28003-10/03/77-20-			10-							40-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.37	
08-37.2778-104.3344-2-99-						0-C28004-10/03/77-20-			10-							13-1-2-5-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00	
08-37.4819-104.5531-2-15-						0-C28008-10/04/77-8-			13-							208-1-1-5-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.74	
08-37.4875-104.5014-2-15-						0-C28009-10/04/77-9-			14-							15-1-1-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.18	
08-37.4528-104.5147-2-15-						0-C28010-10/04/77-10-			15-							139-1-1-5-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.59	
08-37.4078-104.5036-2-15-						0-C28011-10/04/77-10-			17-							15-1-1-4-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.87	
08-37.3961-104.5592-2-15-						0-C28013-10/04/77-10-			18-							81-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.92	
08-37.3942-104.5567-2-15-						0-C28014-10/04/77-10-			18-							10-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.28	
08-37.2081-104.5214-2-15-						0-C28016-10/04/77-12-			17-							10-1-1-2-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.08	
08-37.2175-104.5358-2-12-						0-C28017-10/04/77-12-			17-17.2				7.8-	800-		150-1-1-3-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.37	
08-37.2211-104.5308-2-15-						0-C28018-10/04/77-13-			18-							10-1-8-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.24	
08-37.1767-104.5611-2-15-						0-C28019-10/04/77-13-			16-							9-1-2-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.77	
08-37.1597-104.5386-2-15-						0-C28020-10/04/77-13-			17-							16-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.25	
08-37.1539-104.5481-2-15-						0-C28021-10/04/77-14-			16-							115-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.49	
08-37.1469-104.5642-2-15-						0-C28022-10/04/77-14-			16-							10-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.20	
08-37.1517-104.5708-2-15-						0-C28023-10/04/77-14-			16-							81-1-7-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.64	
08-37.1644-104.5761-2-15-						0-C28024-10/04/77-14-			17-							9-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.29	
08-37.1439-104.5814-2-15-						0-C28025-10/04/77-14-			17-							81-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.75	
08-37.1372-104.6139-2-99-						0-C28026-10/04/77-14-			17-							15-1-2-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.43	
08-37.1447-104.4947-2-11-						0-C28027-10/04/77-15-			19-				7.9-	2600-		139-1-2-5-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.24	
08-37.1747-104.4742-2-15-						0-C28028-10/04/77-16-			23-							11-1-8-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.97	
08-37.1578-104.4258-2-15-						0-C28030-10/04/77-16-			20-							104-1-8-3-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.98	
08-37.1636-104.4561-2-15-						0-C28031-10/04/77-17-			20-							6-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.62	
08-37.2047-104.4517-2-15-						0-C28032-10/04/77-17-			19-							9-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.61	
08-37.2328-104.4528-2-15-						0-C28033-10/04/77-17-			19-							104-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.57	
08-37.2197-104.4289-2-15-						0-C28034-10/04/77-17-			18-							12-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.36	
08-37.2200-104.4394-2-15-						0-C28036-10/04/77-17-			18-							162-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.54	
08-37.2164-104.4381-2-15-						0-C28037-10/04/77-18-			-							17-1-6-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.33	
08-37.1894-104.4533-2-15-						0-C28038-10/05/77-7-			-							127-1-2-5-7-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.53	
08-37.1981-104.4522-2-15-						0-C28039-10/05/77-7-			8-							10-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.13	
08-37.2139-104.4594-2-99-						0-C28040-10/05/77-8-			8-							9-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.88	
08-37.2356-104.4542-2-11-						0-C28041-10/05/77-8-			9-				6.0-	550-		81-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.63	
08-37.2006-104.4747-2-11-						0-C28042-10/05/77-8-			9-				7.5-	1400-		115-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.02	
08-37.2197-104.4950-2-12-						0-C28043-10/05/77-8-			10-				9.0-	610-		92-1-1-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.17	
08-37.2353-104.4997-2-15-						0-C28045-10/05/77-9-			11-							98-1-1-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.11	
08-37.1350-104.4556-2-12-						0-C28046-10/05/77-9-			11-11.0				7.6-	1160-		162-1-2-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.78	
08-37.1569-104.4667-2-99-						0-C28047-10/05/77-9-			10-							104-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.17	
08-37.1636-104.4839-2-11-						0-C28048-10/05/77-9-			11-11.5				7.9-	1200-		121-1-2-6-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.40	
08-37.1664-104.4839-2-15-						0-C28049-10/05/77-9-			11-							13-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.47	
08-37.1850-104.4764-2-15-						0-C28050-10/05/77-9-			11-							86-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.15	
08-37.1992-104.47200-2-11-						0-C28051-10/05/77-9-			11-13.5				6.2-	850-		6-1-2-4-7-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.14	
08-37.1992-104.47322-2-15-						0-C28052-10/05/77-9-			11-							11-1-2-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.68	
08-37.1986-104.47356-2-15-						0-C28053-10/05/77-9-			11-							133-1-2-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.72	
08-37.1292-104.46889-2-15-						0-C28054-10/05/77-10-			12-							11-1-6-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.16	
08-37.1381-104.47106-2-11-						0-C28055-10/05/77-10-			13-12.3				6.2-	1340-		127-1-2-4-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.28	
08-37.1297-104.47400-2-15-						0-C28056-10/05/77-10-			12-							3-1-2-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.59	
08-37.1333-104.47664-2-12-						0-C28057-10/05/77-10-			14-16.0				7.4-	700-		57-1-1-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00	
08-37.1597-104.47758-2-15-						0-C28058-10/05/77-12-			13-							6-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.91	
08-37.1617-104.47764-2-11-						0-C28059-10/05/77-12-			13-19.0				8.0-	700-		115-1-2-3-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.65	
08-37.1839-104.48669-2-15-						0-C28061-10/05/77-13-			14-							92-1-2-5-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.44	

APPENDIX I

Elemental Concentrations for Sediment Samples

②

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.2897-104.8297-2-15-						0-C28001	-5	-5	-5	18	-20	19	-5	-10	-15	3	20	
08-37.2881-104.8253-2-15-						0-C28003	-5	-5	-5	17	-20	-15	12	-10	-15	3	35	
08-37.2778-104.8344-2-99-						0-C28004	-5	-5	-5	32	-20	16	6	-10	-15	3	33	
08-37.4819-104.5531-2-15-						0-C28008	-5	-5	-5	30	-20	35	13	-10	-15	2	25	
08-37.4875-104.5014-2-15-						0-C28009	-5	-5	-5	23	-20	-15	-5	-10	-15	1	29	
08-37.4528-104.5147-2-15-						0-C28010	-5	-5	-5	29	-20	18	10	-10	-15	3	30	
08-37.4078-104.5036-2-15-						0-C28011	-5	-5	-5	26	-20	-15	18	-10	-15	3	35	
08-37.3961-104.5592-2-15-						0-C28013	-5	-5	-5	19	-20	-15	10	-10	-15	3	37	
08-37.3942-104.5567-2-15-						0-C28014	-5	-5	-5	30	-20	19	19	-10	-15	3	34	
08-37.2081-104.5214-2-15-						0-C28016	-5	-5	-5	21	-20	-15	6	-10	-15	3	26	
08-37.2175-104.5358-2-12-						0-C28017	-5	-5	-5	18	-20	15	9	-10	-15	2	22	
08-37.2211-104.5308-2-15-						0-C28018	-5	-5	-5	22	-20	-15	9	-10	-15	2	25	
08-37.1767-104.5611-2-15-						0-C28019	-5	-5	-5	30	-20	-15	5	-10	-15	2	27	
08-37.1597-104.5386-2-15-						0-C28020	-5	-5	-5	21	-20	-15	12	-10	-15	2	28	
08-37.1539-104.5481-2-15-						0-C28021	-5	-5	-5	26	-20	-15	8	-10	-15	2	21	
08-37.1469-104.5642-2-15-						0-C28022	-5	-5	-5	23	-20	-15	15	-10	-15	3	25	
08-37.1517-104.5708-2-15-						0-C28023	-5	-5	-5	32	-20	-15	9	-10	-15	2	24	
08-37.1644-104.5761-2-15-						0-C28024	-5	-5	-5	17	-20	-15	11	-10	-15	2	22	
08-37.1439-104.5814-2-15-						0-C28025	-5	-5	-5	23	-20	-15	5	-10	-15	3	23	
08-37.1372-104.6139-2-99-						0-C28026	-5	-5	-5	30	-20	-15	12	-10	-15	2	26	
08-37.1447-104.4947-2-11-						0-C28027	-5	-5	-5	47	-20	-15	21	-10	-15	2	24	
08-37.1747-104.4742-2-15-						0-C28028	-5	-5	-5	18	-20	-15	10	-10	-15	2	33	
08-37.1578-104.4258-2-15-						0-C28030	-5	-5	-5	27	-20	-15	10	-10	-15	3	37	
08-37.1636-104.4561-2-15-						0-C28031	-5	-5	-5	21	-20	-15	5	-10	-15	3	28	
08-37.2047-104.4617-2-15-						0-C28032	-5	-5	-5	21	-20	-15	11	-10	-15	2	31	
08-37.2328-104.4528-2-15-						0-C28033	-5	-5	-5	31	-20	15	25	-10	-15	2	33	
08-37.2197-104.4289-2-15-						0-C28034	-5	-5	-5	32	-20	-15	14	-10	-15	3	46	
08-37.2200-104.3894-2-15-						0-C28036	-5	-5	-5	26	-20	-15	16	-10	-15	3	40	
08-37.2164-104.4981-2-15-						0-C28037	-5	-5	-5	23	-20	-15	7	-10	-15	3	32	
08-37.1894-104.6533-2-15-						0-C28038	-5	-5	-5	43	-20	-15	-5	-10	-15	2	19	
08-37.1981-104.6622-2-15-						0-C28039	-5	-5	-5	21	-20	16	10	-10	-15	2	25	
08-37.2139-104.6594-2-99-						0-C28040	-5	-5	-5	32	-20	24	13	-10	-15	2	26	
08-37.2356-104.6542-2-11-						0-C28041	-5	-5	-5	23	-20	-15	9	-10	-15	1	20	
08-37.2006-104.6747-2-11-						0-C28042	-5	-5	-5	18	-20	24	10	-10	-15	2	26	
08-37.2197-104.6950-2-12-						0-C28043	-5	-5	-5	24	-20	29	19	-10	-15	2	21	
08-37.2353-104.6997-2-15-						0-C28045	-5	-5	-5	17	-20	-15	13	-10	-15	2	23	
08-37.1350-104.6556-2-12-						0-C28046	-5	-5	-5	31	-20	-15	15	-10	-15	3	25	
08-37.1569-104.6667-2-99-						0-C28047	-5	-5	-5	27	-20	19	19	-10	-15	3	31	
08-37.1636-104.6839-2-11-						0-C28048	-5	7	-5	33	-20	23	10	-10	-15	2	29	
08-37.1664-104.6839-2-15-						0-C28049	-5	-5	-5	20	-20	-15	17	-10	-15	3	25	
08-37.1850-104.7064-2-15-						0-C28050	-5	-5	-5	26	-20	-15	13	-10	-15	2	20	
08-37.1992-104.7200-2-11-						0-C28051	-5	-5	-5	73	-20	15	15	-10	-15	2	37	
08-37.1992-104.7322-2-15-						0-C28052	-5	-5	-5	26	-20	-15	15	-10	-15	2	24	
08-37.1986-104.7356-2-15-						0-C28053	-5	-5	-5	18	-20	26	12	-10	-15	2	27	
08-37.1292-104.6889-2-15-						0-C28054	-5	-5	-5	15	-20	-15	14	-10	-15	3	19	
08-37.1381-104.7106-2-11-						0-C28055	-5	-5	-5	46	-20	-15	15	-10	-15	2	32	
08-37.1297-104.7400-2-15-						0-C28056	-5	-5	-5	38	-20	-15	18	-10	-15	2	17	
08-37.1333-104.7664-2-12-						0-C28057	-5	-5	-5	40	-20	17	13	15	-15	3	33	
08-37.1597-104.7758-2-15-						0-C28058	-5	-5	-5	28	-20	-15	12	-10	-15	3	28	
08-37.1617-104.7764-2-11-						0-C28059	-5	-5	-5	33	-20	20	16	-10	-15	2	33	
08-37.1839-104.8069-2-15-						0-C28061	-5	-5	-5	39	-20	19	13	-10	-15	2	36	

APPENDIX I

Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
08-37.2897-104.8297-2-15-			0-C28001				58490	-0.09	777	10960	100	-115	9.5	43	-2.3	17	3.3	42360	65.5	29360	57	2.8	
08-37.2881-104.8253-2-15-			0-C28003				73670	-0.09	698	8029	51	-89	11.7	29	-2.3	6	1.5	24500	6.7	32760	36	0.4	
08-37.2778-104.8344-2-99-			0-C28004				79610	-0.10	920	11110	86	-85	13.7	62	-2.6	6	2.2	30800	6.3	29850	46	0.5	
08-37.4819-104.5531-2-15-			0-C28008				59260	-0.11	647	94140	49	-81	11.0	62	5.9	4	1.5	30310	5.5	17850	37	0.5	
08-37.4875-104.5014-2-15-			0-C28009				43220	-0.08	629	138500	45	-75	7.1	29	-1.9	5	1.5	27100	6.2	15010	28	0.3	
08-37.4528-104.5147-2-15-			0-C28010				56810	-0.07	470	47790	44	-73	7.6	31	3.8	4	1.3	20020	4.7	19170	28	0.3	
08-37.4078-104.5036-2-15-			0-C28011				73360	-0.08	923	9643	91	-84	13.3	52	3.2	6	2.3	29140	8.9	24120	40	0.5	
08-37.3961-104.5592-2-15-			0-C28013				69880	-0.09	917	12130	74	-81	10.6	42	4.6	5	1.6	29010	7.1	23540	39	0.4	
08-37.3942-104.5567-2-15-			0-C28014				66810	-0.08	737	13150	44	-92	9.5	46	5.7	5	1.3	29220	8.3	19660	31	0.3	
08-37.2081-104.5214-2-15-			0-C28016				66840	-0.07	583	7566	60	-76	9.0	28	2.4	5	1.6	24100	8.4	15620	36	0.4	
08-37.2175-104.5358-2-12-			0-C28017				68990	-0.07	923	9695	78	-77	9.9	30	3.4	5	1.9	25280	14.0	15770	39	0.5	
08-37.2211-104.5308-2-15-			0-C28018				73520	-0.09	746	6986	82	-82	11.3	29	3.1	5	1.7	23080	14.4	18200	45	0.5	
08-37.1767-104.5611-2-15-			0-C28019				65150	-0.09	819	4868	58	-74	8.6	38	2.7	6	1.5	26740	10.5	17600	31	0.4	
08-37.1597-104.5386-2-15-			0-C28020				72940	-0.07	544	7960	66	-84	9.1	24	3.1	4	1.6	21730	13.5	14890	38	0.4	
08-37.1539-104.5481-2-15-			0-C28021				68640	-0.08	728	6963	82	-72	13.2	41	4.3	6	1.7	27090	10.2	18490	33	0.5	
08-37.1469-104.5542-2-15-			0-C28022				63880	-0.09	708	5453	68	-71	11.8	36	2.8	5	1.9	26950	7.9	18440	42	0.4	
08-37.1517-104.5708-2-15-			0-C28023				66130	-0.08	628	7341	57	-79	8.5	37	2.6	6	1.6	22950	9.2	15940	37	0.4	
08-37.1644-104.5761-2-15-			0-C28024				60050	-0.06	475	3920	61	-71	9.8	24	3.4	4	1.6	19530	11.5	16810	36	0.4	
08-37.1439-104.5314-2-15-			0-C28025				60490	-0.07	753	4789	85	-72	7.2	27	3.4	5	1.8	19620	17.4	17640	42	0.7	
08-37.1372-104.6139-2-99-			0-C28026				68780	-0.09	1049	4874	94	-66	12.1	40	3.5	7	2.3	26960	21.7	16710	60	0.6	
08-37.1447-104.4547-2-11-			0-C28027				80430	-0.12	553	16400	48	-83	12.7	-17	4.1	6	1.7	21020	3.6	12510	36	0.6	
08-37.1747-104.4742-2-15-			0-C28028				61080	-0.07	562	11980	54	-83	7.6	34	3.3	4	1.6	21780	9.4	21950	33	0.4	
08-37.1578-104.4258-2-15-			0-C28030				60980	-0.07	695	8149	76	-73	8.3	40	3.4	5	1.5	22370	12.1	18770	35	0.5	
08-37.1636-104.4561-2-15-			0-C28031				65240	-0.09	728	7234	61	-81	9.6	26	3.4	5	1.7	23500	10.4	18890	43	0.5	
08-37.2047-104.4617-2-15-			0-C28032				66760	-0.09	848	12690	59	-89	10.6	37	4.1	5	1.6	25100	12.4	17850	40	0.5	
08-37.2328-104.4528-2-15-			0-C28033				69870	-0.10	570	12260	46	-97	10.2	38	5.1	5	1.5	24200	5.8	16390	28	0.3	
08-37.2197-104.4289-2-15-			0-C28034				67540	-0.08	698	14490	78	-80	10.0	46	4.5	5	1.7	28710	8.1	24870	33	0.5	
08-37.2200-104.3894-2-15-			0-C28036				65900	-0.10	722	13760	73	-81	13.5	57	5.9	6	2.0	34090	10.3	22210	42	0.8	
08-37.2164-104.4981-2-15-			0-C28037				64660	-0.06	702	10680	72	-66	7.1	33	3.9	5	1.5	25280	9.8	18350	35	0.5	
08-37.1894-104.6533-2-15-			0-C28038				76700	-0.10	765	4537	50	154	10.1	35	3.5	5	1.7	24690	4.5	20330	41	0.3	
08-37.1981-104.6622-2-15-			0-C28039				68960	-0.08	707	5337	66	235	11.5	29	2.1	6	1.6	22490	9.5	21080	42	0.6	
08-37.2139-104.6534-2-99-			0-C28040				70040	-0.08	779	5528	88	156	11.5	57	3.4	6	2.1	25820	10.8	21590	43	0.5	
08-37.2356-104.6542-2-11-			0-C28041				65790	-0.09	772	6660	72	433	12.4	48	2.9	6	2.0	28200	12.0	20600	40	0.6	
08-37.2006-104.6747-2-11-			0-C28042				57200	-0.09	888	12340	181	370	8.7	46	-2.4	14	3.0	32080	48.7	18880	103	1.4	
08-37.2197-104.6950-2-12-			0-C28043				69350	-0.08	760	6211	73	209	12.4	40	2.5	5	1.6	31590	8.2	22680	37	0.4	
08-37.2353-104.6937-2-15-			0-C28045				67410	-0.07	998	5326	96	168	11.8	41	2.5	6	2.3	26630	13.6	27550	42	0.7	
08-37.1350-104.6556-2-12-			0-C28046				63160	-0.09	782	10610	88	131	16.5	35	-2.5	5	2.1	57920	9.7	15480	40	0.5	
08-37.1569-104.6657-2-99-			0-C28047				72420	-0.10	743	7186	66	238	9.2	35	3.8	7	1.5	24250	10.3	16580	41	0.5	
08-37.1636-104.6639-2-11-			0-C28048				85590	-0.09	681	11340	80	309	13.8	47	4.5	6	1.7	29050	7.4	23580	44	0.3	
08-37.1664-104.6639-2-15-			0-C28049				69430	-0.07	801	36570	60	197	8.2	31	2.5	4	1.7	24020	7.4	21910	35	0.4	
08-37.1850-104.7064-2-15-			0-C28050				61700	-0.08	1023	10190	85	152	11.6	51	3.8	7	2.4	32040	18.7	23940	50	0.8	
08-37.1992-104.7200-2-11-			0-C28051				97460	-0.13	819	20290	68	276	9.3	57	5.4	6	2.1	23750	5.2	17550	49	0.4	
08-37.1992-104.7322-2-15-			0-C28052				69350	-0.07	936	8499	81	131	15.0	58	-2.1	5	1.8	32780	11.1	22710	43	0.6	
08-37.1986-104.7356-2-15-			0-C28053				68850	-0.08	923	5289	99	175	14.9	74	-2.1	6	2.0	28720	13.3	23000	48	0.7	
08-37.1292-104.6889-2-15-			0-C28054				58480	-0.08	655	3152	65	150	7.6	27	2.4	5	1.5	23650	12.9	17050	34	0.4	
08-37.1381-104.7106-2-11-			0-C28055				92340	-0.11	759	7033	67	204	9.9	60	5.0	7	1.8	26760	7.0	17740	35	0.4	
08-37.1297-104.7400-2-15-			0-C28056				64390	-0.07	570	5159	57	148	11.6	37	3.5	5	1.5	29280	10.3	13890	31	0.4	
08-37.1333-104.7664-2-12-			0-C28057				81030	-0.10	737	16580	102	163	14.7	97	4.1	7	2.4	39650	7.4	16690	39	0.6	
08-37.1597-104.7758-2-15-			0-C28058				75440	-0.08	814	5448	71	-71	13.5	51	3.3	7	1.9	32070	11.3	22310	44	0.6	
08-37.1617-104.7764-2-11-			0-C28059				85550	-0.09	944	6231	111	-79	13.7	57	3.9	7	2.2	35150	12.2	26120	49	0.7	
08-37.1839-104.8069-2-15-			0-C28061				83430	-0.12	909	7098	103	-80	19.5	59	-3.4	7	2.6	42100	7.9	21320	46	0.7	

APPENDIX I

Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REMARKS	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
08-37.2897-104.8297-2-15-						0-C28001	-4845	1231	15230	-42	-2	10.6	9.1	-415	4	2	17.0	7288	90	19.6	-56	0.811
08-37.2881-104.8253-2-15-						0-C28003	9611	473	11680	70	-2	8.4	4.8	-286	-2	-1	7.7	4096	71	4.4	-42	0.568
08-37.2778-104.8344-2-99-						0-C28004	14200	590	9147	85	-3	11.2	7.4	-313	-2	-1	11.5	4465	93	5.9		0.348
08-37.4819-104.5531-2-15-						0-C28008	15650	618	7080	-54	-3	9.8	4.8	404	-2	-1	9.9	2800	133	-2.6	-83	0.378
08-37.4875-104.5014-2-15-						0-C28009	13000	516	6829	39	-2	7.0	4.0	523	-1	-1	7.6	2461	84	2.5	110	0.418
08-37.4528-104.5147-2-15-						0-C28010	19950	306	10600	-32	-2	7.1	3.5	-218	-2	-1	8.2	2832	107	2.7	72	0.438
08-37.4078-104.5036-2-15-						0-C28011	11400	581	12420	83	-2	10.0	7.6	-276	-2	-1	10.6	4684	80	5.0	80	0.365
08-37.3961-104.5592-2-15-						0-C28013	14300	453	14060	-45	-2	9.2	5.9	-248	-2	-1	11.2	3762	86	-2.7	83	0.261
08-37.3942-104.5567-2-15-						0-C28014	13790	510	14070	46	-2	7.6	3.3	-289	-2	-1	8.8	2971	116	2.8	-82	0.373
08-37.2081-104.5214-2-15-						0-C28016	8241	279	14500	-32	-2	7.4	4.4	-209	-1	-1	9.7	3439	62	2.2	69	0.318
08-37.2175-104.5358-2-12-						0-C28017	7303	348	13100	61	-2	7.9	6.0	-224	-1	-1	10.7	4550	68	3.9	76	0.315
08-37.2211-104.5308-2-15-						0-C28018	7117	299	17210	79	-2	8.8	5.4	-222	-2	-1	11.8	4591	60	-2.1	47	0.275
08-37.1767-104.5611-2-15-						0-C28019	8285	363	9335	-39	-2	8.4	4.5	-248	-2	-1	9.6	5252	65	3.7	81	0.393
08-37.1597-104.5386-2-15-						0-C28020	10890	268	18970	82	-2	8.4	4.5	-216	-1	-1	10.2	4265	71	-1.5	73	0.319
08-37.1539-104.5481-2-15-						0-C28021	7963	363	11300	57	-2	9.0	6.8	-225	-1	-1	10.8	4941	76	3.7	71	0.323
08-37.1469-104.5642-2-15-						0-C28022	8355	331	11620	68	-2	9.1	5.5	-217	-2	-1	11.2	3871	63	4.2	-62	0.286
08-37.1517-104.5708-2-15-						0-C28023	8893	328	12060	-37	-2	7.9	3.7	-243	-2	-1	9.0	4227	64	3.6	-66	0.404
08-37.1644-104.5761-2-15-						0-C28024	6202	286	13190	58	-2	6.6	4.5	-194	-1	-1	9.9	3522	48	4.8	-67	0.332
08-37.1439-104.5814-2-15-						0-C28025	6523	263	13810	58	-2	6.4	6.1	-203	-1	-1	12.2	4350	56	5.7	84	0.307
08-37.1372-104.6139-2-99-						0-C28026	6816	300	11500	84	-2	9.7	8.0	-198	-2	-1	15.6	4438	75	6.2	-44	0.284
08-37.1447-104.4947-2-11-						0-C28027	10480	460	6418	-56	-3	9.5	4.4	556	-3	-1	8.5	4936	90	-2.4	120	0.381
08-37.1747-104.4742-2-15-						0-C28028	9491	292	16350	70	-2	6.3	4.0	-223	-1	-1	8.9	3424	68	3.3	154	0.334
08-37.1578-104.4258-2-15-						0-C28030	10920	238	14520	57	-2	6.2	7.0	-202	-1	-1	11.7	3677	65	3.6	90	0.255
08-37.1636-104.4561-2-15-						0-C28031	10590	265	17940	91	-2	7.7	5.3	-215	-2	-1	11.6	3324	60	3.9	-58	0.226
08-37.2047-104.4617-2-15-						0-C28032	12330	422	13760	-39	-2	7.9	4.1	-277	-1	-1	10.8	3543	73	3.3	59	0.334
08-37.2328-104.4528-2-15-						0-C28033	19450	596	11690	-41	-2	8.0	4.0	-324	-2	-1	8.2	4085	101	2.7	123	0.435
08-37.2197-104.4289-2-15-						0-C28034	15250	554	11960	90	-2	8.4	6.4	-272	-1	-1	12.1	4011	102	3.2	-71	0.278
08-37.2200-104.3894-2-15-						0-C28036	17100	587	11140	92	-3	10.1	6.5	-274	-2	-1	12.6	3845	111	4.5	201	0.281
08-37.2164-104.4981-2-15-						0-C28037	14590	218	13870	52	-1	6.9	6.4	-188	-1	-1	11.0	3342	69	3.2	44	0.303
08-37.1894-104.6533-2-15-						0-C28038	8723	382	8369	-42	-2	10.3	3.6	-276	-2	-1	8.6	4093	81	3.2	130	0.410
08-37.1981-104.6622-2-15-						0-C28039	9202	383	9346	-36	-2	9.4	4.5	-231	-1	-1	8.4	4051	72	4.1	47	0.492
08-37.2139-104.6594-2-99-						0-C28040	9040	435	9188	-33	-2	10.3	6.7	-234	-1	-1	11.3	4700	83	4.8	-44	0.343
08-37.2356-104.6542-2-11-						0-C28041	8583	368	10500	76	-2	10.8	6.6	-218	-2	-1	10.6	4214	69	5.2	-69	0.342
08-37.2006-104.6747-2-11-						0-C28042	6534	1137	11260	-41	-2	10.9	13.9	-393	-2	2	30.5	5190	73	11.1	108	0.263
08-37.2197-104.6950-2-12-						0-C28043	7520	805	11720	-38	-2	8.9	4.2	-317	-2	-1	7.8	3741	61	3.2	91	0.406
08-37.2353-104.6997-2-15-						0-C28045	7597	547	12440	-33	-2	9.3	7.4	-259	-1	-1	10.6	4782	75	5.5	-47	0.388
08-37.1350-104.6556-2-12-						0-C28046	8564	816	10570	-50	-2	10.0	7.7	-293	-2	-1	10.8	3365	64	4.6	76	0.257
08-37.1569-104.6667-2-99-						0-C28047	7880	326	8709	71	-2	10.0	3.8	-270	-3	-1	9.2	4914	85	4.1	-66	0.453
08-37.1636-104.6839-2-11-						0-C28048	15580	556	6504	76	-2	12.5	5.1	-287	-2	-1	10.9	5154	102	4.4	89	0.404
08-37.1664-104.6839-2-15-						0-C28049	12890	439	19430	56	-2	7.5	5.6	532	-1	-1	8.7	3352	76	2.8	-37	0.284
08-37.1850-104.7064-2-15-						0-C28050	8654	580	11970	88	-2	11.0	6.7	-239	-2	-1	12.9	4410	64	6.0	-47	0.322
08-37.1992-104.7200-2-11-						0-C28051	13500	335	3104	-57	-3	15.7	4.8	409	-2	-2	10.8	6063	129	3.0	-80	0.476
08-37.1992-104.7322-2-15-						0-C28052	13900	667	13720	-35	-2	11.1	5.9	-271	-1	-1	9.0	4629	83	4.2	129	0.409
08-37.1986-104.7356-2-15-						0-C28053	9196	821	13680	-36	-2	10.3	7.3	-314	-1	-1	10.4	4019	67	4.1		0.358
08-37.1292-104.6889-2-15-						0-C28054	6565	255	13010	66	-2	7.6	4.6	-197	-2	-1	11.8	3510	48	5.2	-32	0.268
08-37.1381-104.7106-2-11-						0-C28055	12550	324	7140	-48	-3	13.0	5.4	-275	-2	-1	11.3	5905	107	3.2	178	0.379
08-37.1297-104.7400-2-15-						0-C28056	8770	286	6953	54	-2	9.4	4.4	-184	-1	-1	9.0	4137	83	3.0	-103	0.399
08-37.1333-104.7664-2-12-						0-C28057	10150	626	7801	61	-2	12.5	7.9	-309	-2	-1	10.9	4758	96	5.2	196	0.367
08-37.1597-104.7758-2-15-						0-C28058	10100	454	9406	-41	-2	12.0	5.6	-242	-2	-1	10.0	5028	97	5.0	188	0.491
08-37.1617-104.7764-2-11-						0-C28059	14590	509	9596	82	-2	13.7	8.7	-290	-2	2	12.7	6602	100	5.7	-66	0.366
08-37.1839-104.8069-2-15-						0-C28061	13500	663	9090	-61	-3	15.4	8.1	-304	-3	-2	12.0	5057	93	6.1	156	0.370

[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.1928-104.7964-2-11-						0-C28062	-5	-5	-5	28	-20	16	15	-10	-15		2	33
08-37.2181-104.7550-2-15-						0-C28063	-5	-5	-5	25	-20	-15	21	-10	-15		2	22
08-37.2375-104.7839-2-11-						0-C28064	-5	-5	-5	30	-20	-15	14	-10	-15		2	21
08-37.2039-104.8275-2-15-						0-C28065	-5	-5	-5	22	-20	25	10	-10	-15		2	29
08-37.2175-104.8408-2-15-						0-C28066	-5	-5	-5	25	-20	15	21	-10	-15		3	28
08-37.2197-104.8361-2-15-						0-C28068	-5	-5	-5	33	-20	20	12	-10	-15		2	22
08-37.2344-104.8325-2-99-						0-C28069	-5	-5	-5	24	-20	22	17	-10	-15		2	19
08-37.2411-104.8361-2-11-						0-C28070	-5	-5	-5	34	-20	15	17	-10	-15		3	29
08-37.1794-104.8419-2-15-						0-C28071	-5	-5	-5	28	-20	20	17	-10	-15		3	25
08-37.1719-104.8439-2-15-						0-C28072	-5	-5	-5	24	-20	31	12	-10	-15		3	26
08-37.1361-104.8514-2-12-						0-C28073	-5	-5	-5	20	-20	-15	12	-10	-15		2	22
08-37.1317-104.8067-2-15-						0-C28075	-5	-5	-5	28	-20	15	8	-10	-15		3	38
08-37.1256-104.8050-2-15-						0-C28076	-5	-5	-5	42	-20	24	14	-10	-15		3	40
08-37.0303-104.3194-2-11-						0-C28077	-5	5	-5	21	-20	-15	13	-10	-15		3	29
08-37.0400-104.3261-2-11-						0-C28078	-5	-5	-5	30	-20	15	9	-10	-15		2	25
08-37.0594-104.3361-2-11-						0-C28079	-5	-5	-5	24	-20	-15	20	-10	-15		3	31
08-37.0558-104.3369-2-11-						0-C28080	-5	-5	-5	42	-20	-15	13	-10	-15		2	43
08-37.8192-104.7492-2-11-						0-C28082	-5	-5	-5	11	-20	-15	9	-10	-15		2	40
08-37.8044-104.7411-2-15-						0-C28083	-5	-5	-5	30	-20	-15	13	-10	-15		3	21
08-37.8386-104.7292-2-11-						0-C28084	-5	-5	-5	25	-20	29	10	-10	-15		3	102
08-37.8533-104.7058-2-12-						0-C28085	5	-5	-5	-10	-20	23	11	-10	-15		2	13
08-37.8622-104.6958-2-15-						0-C28086	-5	-5	-5	33	-20	23	-5	-10	-15		3	42
08-37.8642-104.6869-2-15-						0-C28087	-5	-5	-5	20	-20	-15	11	-10	-15		3	33
08-37.7519-104.5314-2-15-						0-C28088	-5	-5	-5	20	-20	-15	14	-10	-15		2	25
08-37.0950-104.2281-2-12-						0-C28089	-5	-5	-5	23	-20	47	12	-10	-15		3	38
08-37.0433-104.2061-2-11-						0-C28090	-5	-5	-5	26	-20	22	33	-10	-15		3	32
08-37.0414-104.2075-2-15-						0-C28091	-5	-5	-5	18	-20	18	17	-10	-15		3	45
08-37.0369-104.2147-2-15-						0-C28092	-5	-5	-5	36	-20	17	16	-10	-15		3	30
08-37.9978-104.6850-2-11-						0-C28094	-5	-5	-5	22	-20	21	8	-10	-15		3	51
08-37.9731-104.7386-2-11-						0-C28095	-5	-5	-5	39	-20	31	16	-10	-15		3	48
08-37.9456-104.6392-2-15-						0-C28098	-5	-5	-5	31	-20	-15	15	-10	-15		3	37
08-37.9297-104.6281-2-15-						0-C28099	-5	-5	-5	15	-20	16	8	-10	-15		3	42
08-37.9419-104.6500-2-11-						0-C28100	-5	-5	-5	28	-20	34	17	-10	-15		3	39
08-37.9206-104.6947-2-11-						0-C28101	-5	-5	-5	25	-20	18	27	-10	-15		3	47
08-37.9019-104.6503-2-15-						0-C28105	-5	-5	-5	28	-20	-15	17	-10	-15		3	42
08-37.9806-104.3108-2-15-						0-C28107	-5	-5	-5	27	-20	-15	13	-10	18		3	34
08-37.9692-104.3694-2-15-						0-C28108	-5	-5	-5	19	-20	-15	10	-10	-15		3	44
08-37.9458-104.2878-2-15-						0-C28109	-5	-5	-5	26	-20	-15	16	-10	-15		3	35
08-37.9567-104.3278-2-15-						0-C28110	-5	-5	-5	17	-20	21	9	-10	-15		3	37
08-37.8967-104.6392-2-15-						0-C28112	-5	-5	-5	-10	-20	-15	-5	-10	-15		2	28
08-37.8533-104.6656-2-15-						0-C28113	-5	-5	-5	25	-20	-15	11	-10	-15		2	31
08-37.8158-104.7025-2-12-						0-C28117	-5	-5	-5	23	-20	-15	7	-10	-15		3	33
08-37.7969-104.7231-2-15-						0-C28118	-5	-5	-5	28	-20	-15	6	-10	-15		2	30
08-37.9042-104.6350-2-15-						0-C28121	-5	-5	-5	28	-20	-15	10	-10	-15		3	35
08-37.7361-104.3197-2-15-						0-C28123	-5	-5	-5	27	-20	-15	9	-10	-15		2	24
08-37.7428-104.2703-2-11-						0-C28125	-5	-5	-5	22	-20	-15	17	-10	15		3	34
08-37.7433-104.3711-2-11-						0-C28126	-5	8	-5	18	-20	-15	14	-10	-15		3	37
08-37.6936-104.2969-2-15-						0-C28130	-5	-5	-5	21	-20	-15	7	-10	-15		3	40
08-37.7006-104.2628-2-11-						0-C28132	-5	-5	-5	20	-20	28	16	-10	-15		4	52
08-37.6394-104.3689-2-11-						0-C28136	-5	-5	-5	24	-20	26	12	-10	-15		8	37
08-37.6528-104.3217-2-11-						0-C28137	-5	-5	-5	23	-20	19	9	-10	-15		2	47

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
08-37.1928-104.7364-2-11-						0-C28062	80320	-0.09	1045	9877	76	-93	15.9	53	3.3	6	2.0	37810	8.5	23170	42	0.5	
08-37.2181-104.7550-2-15-						0-C28063	72380	-0.12	844	27070	94	193	16.8	82	5.0	5	2.1	39710	7.4	21650	46	0.5	
08-37.2375-104.7339-2-11-						0-C28064	70980	-0.11	1107	11820	60	267	9.9	44	-2.8	6	1.9	23290	8.8	28560	42	0.5	
08-37.2039-104.8275-2-15-						0-C28065	70480	-0.08	935	9462	49	-92	12.4	36	-2.1	6	1.6	23630	9.9	28020	30	0.5	
08-37.2175-104.8408-2-15-						0-C28066	77910	-0.08	1190	7255	75	-95	12.5	49	2.6	5	1.6	26660	9.4	32100	30	0.6	
08-37.2197-104.8361-2-15-						0-C28068	68920	-0.13	994	37520	77	252	14.1	62	-3.7	6	1.7	36450	5.6	23040	45	0.5	
08-37.2344-104.8325-2-99-						0-C28069	68860	-0.11	795	27050	52	230	12.6	51	3.8	5	1.5	25970	5.3	20920	32	0.4	
08-37.2411-104.8361-2-11-						0-C28070	78230	-0.11	761	20880	61	206	15.4	49	-2.9	7	1.5	29420	4.9	25930	37	0.4	
08-37.1794-104.8419-2-15-						0-C28071	70450	-0.08	1075	8421	137	-91	10.2	48	-2.0	10	2.7	31740	35.4	25440	61	1.3	
08-37.1719-104.8439-2-15-						0-C28072	67190	-0.09	1006	7730	125	-88	13.6	56	-2.5	9	2.5	38120	30.4	26160	68	1.3	
08-37.1361-104.8514-2-12-						0-C28073	59740	-0.07	971	5392	41	-85	7.7	21	-2.0	4	1.3	24620	5.5	24880	26	0.3	
08-37.1317-104.8067-2-15-						0-C28075	72260	-0.08	843	6083	73	128	13.6	49	2.9	8	1.9	29460	14.6	24180	43	0.6	
08-37.1256-104.8050-2-15-						0-C28076	69590	-0.08	1150	5382	117	-68	13.6	57	3.1	8	2.6	33540	24.9	18580	50	1.0	
08-37.0303-104.3194-2-11-						0-C28077	58650	-0.10	944	4439	75	-71	12.2	43	3.8	6	1.9	19730	16.4	23800	40	0.7	
08-37.0400-104.3261-2-11-						0-C28078	64310	-0.10	878	9497	50	192	15.6	67	3.3	5	1.6	29420	9.1	19760	34	0.4	
08-37.0594-104.3361-2-11-						0-C28079	74730	-0.09	584	6678	62	147	11.2	38	4.9	5	1.6	20340	8.3	17570	38	0.4	
08-37.0558-104.3369-2-11-						0-C28080	88330	-0.09	578	7915	92	105	11.5	58	5.3	6	1.6	26650	8.3	16470	50	0.4	
08-37.8192-104.7492-2-11-						0-C28082	60070	-0.10	585	41290	74	154	8.0	53	4.6	5	2.0	25310	16.2	17500	42	0.6	
08-37.8044-104.7411-2-15-						0-C28083	62530	-0.09	1115	23230	94	-110	11.4	48	-2.3	7	2.1	50290	17.1	22300	52	0.6	
08-37.8386-104.7292-2-11-						0-C28084	58870	-0.09	488	96820	40	149	9.4	40	4.8	4	1.1	22860	3.4	16770	24	-0.1	
08-37.8533-104.7058-2-12-						0-C28085	47560	-0.08	958	26420	173	-102	12.7	97	-2.0	7	2.6	101700	21.7	22110	69	0.9	
08-37.8622-104.6958-2-15-						0-C28086	64800	-0.11	761	39800	74	-91	12.4	53	2.5	6	2.6	32800	9.2	21370	39	0.7	
08-37.8642-104.6869-2-15-						0-C28087	66380	-0.10	826	40230	56	174	9.5	41	3.3	6	1.8	28090	9.0	21590	36	0.3	
08-37.7519-104.5314-2-15-						0-C28088	57320	-0.07	569	33830	61	-85	8.6	33	-1.9	6	1.8	33010	14.8	22850	37	0.6	
08-37.0950-104.2281-2-12-						0-C28089	52170	-0.08	514	90850	67	88	10.5	80	6.0	5	1.7	26710	9.4	15770	34	0.4	
08-37.0433-104.2061-2-11-						0-C28090	60040	-0.10	576	31530	80	-80	13.7	78	5.5	6	1.9	31580	22.1	18020	48	0.7	
08-37.0414-104.2075-2-15-						0-C28091	64880	-0.10	670	30640	51	-87	10.4	47	5.0	5	1.3	25830	7.1	19350	35	0.4	
08-37.0369-104.2147-2-15-						0-C28092	64990	-0.08	583	7468	56	-83	11.3	34	3.3	5	1.6	23600	8.0	19290	27	0.3	
08-37.9978-104.6850-2-11-						0-C28094	70810	-0.08	524	23990	82	79	7.9	55	4.5	5	1.9	24120	7.9	19560	41	0.4	
08-37.9731-104.7386-2-11-						0-C28095	62880	-0.11	767	78580	79	155	14.5	54	5.3	5	2.0	30430	9.7	21150	56	0.5	
08-37.9456-104.6392-2-15-						0-C28098	71120	-0.09	795	26840	74	-99	8.4	37	4.0	6	1.8	29510	9.8	23880	45	0.4	
08-37.9297-104.6281-2-15-						0-C28099	57290	-0.07	544	29510	64	57	7.9	33	3.1	5	1.5	17840	9.4	17650	36	0.3	
08-37.9419-104.6500-2-11-						0-C28100	69160	-0.08	738	45960	86	-91	11.5	36	3.6	6	1.8	27260	10.2	22560	41	0.5	
08-37.9206-104.6447-2-11-						0-C28101	68650	-0.11	659	37640	85	-75	10.7	63	6.5	5	2.1	28950	7.4	22930	42	0.6	
08-37.9019-104.6503-2-15-						0-C28105	72510	-0.11	714	37560	54	168	10.0	42	2.6	6	1.7	31630	7.1	24190	40	0.5	
08-37.9806-104.3108-2-15-						0-C28107	63430	-0.07	706	38600	67	-82	9.5	31	3.4	5	1.7	25040	10.2	27170	39	0.5	
08-37.9692-104.3694-2-15-						0-C28108	51990	-0.06	503	45340	78	-57	5.7	40	4.1	4	1.7	17890	8.8	18010	29	0.4	
08-37.9458-104.2E78-2-15-						0-C28109	66260	-0.10	665	30100	93	-88	10.6	48	4.2	6	2.4	32050	12.2	25510	50	0.6	
08-37.9567-104.3E78-2-15-						0-C28110	59730	-0.08	651	40130	58	-87	7.2	38	2.2	7	1.8	23740	13.0	23800	42	0.6	
08-37.8967-104.6E92-2-15-						0-C28112	59740	-0.07	612	23880	67	-80	11.4	54	2.8	5	1.9	43980	21.2	18170	43	0.6	
08-37.8533-104.6656-2-15-						0-C28113	66400	-0.07	724	42800	94	-84	10.1	44	3.8	5	1.9	33310	14.2	22510	41	0.6	
08-37.8158-104.7025-2-12-						0-C28117	61050	-0.09	669	44970	79	-83	10.9	56	3.7	5	2.2	33880	12.9	17630	46	0.6	
08-37.7969-104.7E31-2-15-						0-C28118	68050	-0.09	728	49670	58	-109	9.7	48	-2.6	7	1.7	40350	12.6	23750	42	0.6	
08-37.9042-104.6E50-2-15-						0-C28121	66140	-0.07	808	29290	63	184	11.1	28	-2.1	5	2.0	29560	9.9	22710	39	0.4	
08-37.7361-104.3197-2-15-						0-C28123	57150	-0.07	785	20080	89	-78	7.9	49	3.0	6	2.1	27730	18.1	18860	40	0.6	
08-37.7428-104.2703-2-11-						0-C28125	60500	-0.11	659	13870	133	-79	12.1	78	4.4	10	2.7	43020	45.4	20770	68	1.2	
08-37.7433-104.3711-2-11-						0-C28126	67020	-0.09	732	32050	60	-96	11.1	50	-2.7	6	1.5	27420	14.2	20450	40	0.5	
08-37.6936-104.2E69-2-15-						0-C28130	71910	-0.08	699	12710	72	-84	9.2	37	3.5	5	1.6	29400	8.8	22870	37	0.5	
08-37.7006-104.2E28-2-11-						0-C28132	71900	-0.08	747	12260	95	69	24.1	44	4.4	7	2.1	29690	11.2	20770	45	0.7	
08-37.6394-104.3E89-2-11-						0-C28136	56220	-0.12	576	23900	113	-84	20.9	56	-3.2	8	2.4	46480	18.5	18100	46	0.8	
08-37.6528-104.3E17-2-11-						0-C28137	62290	-0.09	630	54200	64	-92	6.2	41	-2.6	5	1.2	24550	8.7	17820	37	0.4	

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APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.6417-104.2981-2-11-						0-C28138	-5	-5	-5	21	-20	23	15	-10	-15	4	49	
08-37.6522-104.2661-2-11-						0-C28139	-5	-5	-5	19	-20	50	15	-10	-15	5	38	
08-37.5419-104.2672-2-15-						0-C28145	-5	-5	-5	17	-20	15	9	-10	-15	3	44	
08-37.5361-104.2986-2-15-						0-C28146	-5	-5	-5	36	-20	30	17	-10	-15	2	47	
08-37.5289-104.3225-2-15-						0-C28147	-5	-5	-5	21	-20	19	14	-10	-15	2	45	
08-37.5008-104.3597-2-15-						0-C28148	-5	-5	-5	25	-20	17	-5	-10	-15	3	47	
08-37.6181-104.2369-2-15-						0-C28150	-5	-5	-5	25	-20	18	-5	-10	-15	2	33	
08-37.6197-104.2514-2-15-						0-C28151	-5	-5	-5	20	-20	25	8	-10	-15	2	48	
08-37.6133-104.3403-2-15-						0-C28152	-5	5	-5	16	-20	20	11	-10	-15	3	42	
08-37.7878-104.5489-2-15-						0-C28153	-5	-5	-5	19	-20	-15	11	-10	-15	2	21	
08-37.8283-104.5439-2-11-						0-C28154	-5	-5	-5	21	-20	15	13	-10	-15	3	37	
08-37.8519-104.5197-2-11-						0-C28156	-5	-5	-5	35	-20	20	18	-10	-15	3	37	
08-37.8469-104.5689-2-12-						0-C28158	-5	-5	-5	18	-20	-15	16	-10	-15	3	34	
08-37.8472-104.5733-2-15-						0-C28159	-5	-5	-5	17	-20	-15	13	-10	-15	3	29	
08-37.7725-104.6108-2-15-						0-C28160	-5	-5	-5	21	-20	22	6	-10	-15	2	20	
08-37.8592-104.7289-2-12-						0-C28161	-5	-5	-5	27	-20	18	6	-10	-15	2	44	
08-37.7594-104.5167-2-15-						0-C28162	-5	-5	-5	28	-20	-15	15	-10	-15	3	34	
08-37.4175-104.0811-2-15-						0-C28166	-5	-5	-5	34	-20	28	18	-10	19	2	45	
08-37.3836-104.0406-2-15-						0-C28169	-5	-5	-5	15	-20	-15	18	-10	-15	4	54	
08-37.4733-104.0272-2-15-						0-C28173	-5	-5	-5	14	-20	-15	8	-10	-15	1	32	
08-37.4658-104.0581-2-15-						0-C28175	-5	-5	-5	27	-20	35	-5	-10	-15	2	109	
08-37.4350-104.0058-2-15-						0-C28177	-5	6	-5	34	-20	43	-5	-10	-15	2	104	
08-37.3792-104.2422-2-15-						0-C28180	-5	-5	-5	24	-20	16	16	-10	-15	3	29	
08-37.4381-104.1425-2-15-						0-C28183	-5	-5	-5	16	-20	-15	14	-10	-15	3	37	
08-37.4028-104.2311-2-15-						0-C28185	-5	-5	-5	25	-20	38	5	-10	-15	2	15	
08-37.4253-104.2211-2-15-						0-C28186	-5	5	-5	37	-20	25	30	-10	-15	3	38	
08-37.5142-104.2486-2-15-						0-C28189	-5	-5	-5	30	-20	18	5	-10	-15	3	33	
08-37.3019-104.4694-2-15-						0-C28190	-5	-5	-5	30	-20	26	16	-10	-15	3	31	
08-37.5422-104.2492-2-15-						0-C28192	-5	-5	-5	26	-20	22	10	-10	-15	3	26	
08-37.5769-104.1567-2-11-						0-C28194	-5	-5	-5	21	-20	19	-5	-10	-15	2	25	
08-37.5764-104.1300-2-15-						0-C28195	-5	-5	-5	34	-20	20	14	-10	-15	3	48	
08-37.5703-104.2308-2-15-						0-C28197	-5	-5	-5	21	-20	15	9	-10	-15	2	41	
08-37.5811-104.2336-2-15-						0-C28198	-5	-5	-5	22	-20	-15	14	-10	-15	2	15	
08-37.5472-104.2678-2-11-						0-C28199	-5	-5	-5	19	-20	27	15	-10	-15	3	36	
08-37.6108-104.2233-2-15-						0-C28200	-5	-5	-5	27	-20	27	10	-10	19	2	33	
08-37.6214-104.1378-2-15-						0-C28201	-5	-5	-5	26	-20	-15	7	-10	-15	2	38	
08-37.6061-104.1436-2-15-						0-C28203	-5	-5	-5	20	-20	29	6	-10	-15	2	33	
08-37.5403-104.1381-2-15-						0-C28204	-5	-5	-5	28	-20	15	8	-10	-15	3	26	
08-37.5836-104.0533-2-15-						0-C28206	-5	-5	-5	14	-20	15	7	-10	-15	2	27	
08-37.5717-104.1072-2-15-						0-C28207	-5	-5	-5	27	-20	-15	9	-10	-15	3	30	
08-37.5472-104.1131-2-15-						0-C28208	-5	-5	-5	14	-20	-15	10	-10	-15	2	34	
08-37.5156-104.0722-2-15-						0-C28210	-5	-5	-5	25	-20	-15	6	-10	-15	3	33	
08-37.5850-104.0242-2-15-						0-C28211	-5	-5	-5	28	-20	-15	12	-10	-15	2	28	
08-37.5511-104.0269-2-15-						0-C28212	-5	-5	-5	23	-20	-15	9	-10	-15	2	87	
08-37.5217-104.0453-2-11-						0-C28214	-5	-5	-5	30	-20	-15	16	-10	-15	2	41	
08-37.8706-104.5147-2-15-						0-C28216	-5	-5	-5	23	-20	-15	6	-10	-15	3	43	
08-37.6122-104.8050-2-15-						0-C28217	-5	-5	-5	31	-20	-15	17	-10	-15	3	31	
08-37.6658-104.8328-2-15-						0-C28218	-5	-5	-5	18	-20	-15	6	-10	-15	2	39	
08-37.7381-104.1631-2-15-						0-C28220	-5	-5	-5	20	-20	-15	10	-10	-15	2	21	
08-37.6294-104.0269-2-15-						0-C28221	-5	-5	-5	20	-20	16	7	-10	-15	2	16	
08-37.6419-104.0358-2-15-						0-C28222	-5	-5	-5	28	-20	-15	22	-10	-15	3	54	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS															
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.6417-104.2981-2-11-			0-C28138				74510	-0.09	529	14830	51	84	15.2	35	4.3	6	1.5	23920	6.1	19120	41	0.4
08-37.6522-104.2661-2-11-			0-C28139				55130	-0.08	466	8026	85	-65	33.7	49	5.2	7	1.9	40070	12.8	16800	36	0.5
08-37.5419-104.2672-2-15-			0-C28145				53580	-0.08	594	72180	75	-67	9.6	56	5.0	6	2.0	29780	16.3	17830	45	0.7
08-37.5361-104.2986-2-15-			0-C28146				57720	-0.09	389	106600	47	-76	8.2	36	4.5	5	1.2	23780	5.0	15170	24	0.4
08-37.5289-104.3225-2-15-			0-C28147				52730	-0.08	375	131600	37	-62	5.8	42	4.8	4	1.0	23400	3.4	14480	26	0.3
08-37.5008-104.3597-2-15-			0-C28148				60000	-0.07	505	61280	78	-66	8.6	53	5.5	5	1.3	25830	7.2	17960	31	0.4
08-37.6181-104.2369-2-15-			0-C28150				45420	-0.08	465	152900	51	-59	8.2	33	2.8	5	1.7	27180	8.6	11890	37	0.4
08-37.6197-104.2514-2-15-			0-C28151				60480	-0.08	600	33260	48	120	12.1	33	-2.3	5	1.2	21120	9.5	18110	30	0.4
08-37.6133-104.3403-2-15-			0-C28152				61450	-0.07	483	60780	51	-74	9.9	37	3.8	5	1.4	25220	7.2	21950	35	0.4
08-37.7878-104.5489-2-15-			0-C28153				55030	-0.06	677	28800	84	-78	8.7	38	2.8	6	2.0	31000	18.1	15410	39	0.6
08-37.8283-104.5439-2-11-			0-C28154				69260	-0.10	809	19660	77	-88	12.2	47	4.2	6	2.7	33300	13.3	21230	47	0.7
08-37.8519-104.5197-2-11-			0-C28156				71600	-0.11	936	24440	61	-101	9.5	42	6.5	7	1.8	31780	7.8	26140	42	0.5
08-37.8469-104.5689-2-12-			0-C28158				59770	-0.07	593	32610	59	-89	9.7	34	3.0	5	1.7	29430	11.7	19840	41	0.5
08-37.8472-104.5733-2-15-			0-C28159				66900	-0.07	834	15840	84	-85	8.5	43	3.0	6	2.1	28640	13.7	22840	36	0.6
08-37.7725-104.6108-2-15-			0-C28160				44220	-0.08	505	155400	54	-69	8.2	39	3.9	5	1.6	29730	8.0	13250	37	0.4
08-37.8592-104.7289-2-12-			0-C28161				53620	-0.10	485	87150	48	-83	4.9	40	3.3	4	1.2	20770	6.7	17480	29	0.3
08-37.7594-104.5167-2-15-			0-C28162				67550	-0.08	754	30170	63	-89	12.7	32	3.9	6	1.7	28320	8.9	20480	40	0.5
08-37.4175-104.0811-2-15-			0-C28166				56250	-0.07	557	84460	71	-66	8.6	47	3.9	5	1.5	25190	10.6	17520	33	0.5
08-37.3836-104.0406-2-15-			0-C28169				82090	-0.10	253	25690	74	-38	6.1	58	9.2	6	1.5	17410	12.3	12690	45	0.6
08-37.4733-104.0272-2-15-			0-C28173				44640	-0.08	407	157500	36	-76	4.5	38	3.0	5	0.8	20550	5.7	14630	24	0.2
08-37.4658-104.0581-2-15-			0-C28175				48600	-0.08	469	120700	36	-64	7.6	21	3.6	4	1.0	24120	2.8	13740	26	0.2
08-37.4350-104.0058-2-15-			0-C28177				54560	-0.07	660	108800	76	-57	8.8	45	4.1	5	1.6	28210	6.1	14150	33	0.5
08-37.3792-104.2422-2-15-			0-C28180				55440	-0.09	667	51970	61	-76	10.4	41	3.7	5	1.7	28620	10.9	18880	39	0.5
08-37.4381-104.1425-2-15-			0-C28183				58650	-0.09	686	35670	46	-93	7.7	25	2.8	6	1.3	23310	11.5	23490	35	0.4
08-37.4028-104.2311-2-15-			0-C28185				35920	-0.06	381	154100	42	-61	8.2	30	3.5	3	1.2	21830	5.6	10730	22	0.3
08-37.4253-104.2211-2-15-			0-C28186				61970	-0.08	543	62920	75	-73	11.1	61	6.5	6	1.9	27860	6.6	18500	40	0.4
08-37.5142-104.2486-2-15-			0-C28189				64750	-0.09	774	38510	86	-81	12.4	39	4.8	6	2.2	31050	11.7	26280	44	0.5
08-37.3019-104.4694-2-15-			0-C28190				63290	-0.08	708	10360	56	-87	8.7	50	3.2	5	1.4	28090	7.9	17880	37	0.4
08-37.5422-104.2492-2-15-			0-C28192				56210	-0.07	439	78710	52	-71	8.6	32	3.9	4	1.5	24240	8.2	17350	28	0.3
08-37.5769-104.1567-2-11-			0-C28194				47760	-0.08	429	135000	76	-85	10.0	49	3.8	5	1.6	20320	8.0	20760	32	0.4
08-37.5764-104.1300-2-15-			0-C28195				64370	-0.07	579	60300	76	-62	8.8	50	5.7	5	1.7	23730	7.2	20560	34	0.3
08-37.5703-104.2308-2-15-			0-C28197				57720	-0.09	516	86840	62	-70	9.9	44	5.7	5	1.5	32150	9.0	14330	40	0.4
08-37.5811-104.2336-2-15-			0-C28198				45390	-0.07	448	125900	40	-64	5.6	36	2.9	4	1.3	20060	9.0	14970	25	0.3
08-37.5472-104.2678-2-11-			0-C28199				52820	-0.06	674	60840	73	-68	7.2	45	3.0	5	1.5	22400	10.5	19960	30	0.5
08-37.6108-104.2233-2-15-			0-C28200				55840	-0.08	407	97260	75	-60	8.5	42	4.6	5	1.4	25690	6.2	15210	33	0.4
08-37.6214-104.1378-2-15-			0-C28201				49020	-0.08	510	118000	61	-72	8.9	39	4.8	5	1.7	27190	9.9	18780	35	0.4
08-37.6061-104.1436-2-15-			0-C28203				50470	-0.09	393	121600	33	-66	9.5	35	-2.2	4	1.0	23270	5.3	15960	28	0.3
08-37.5403-104.1381-2-15-			0-C28204				56080	-0.07	628	59580	59	-75	7.4	28	3.1	5	1.4	24690	9.3	21500	30	0.4
08-37.5836-104.0533-2-15-			0-C28206				55470	-0.06	542	75160	79	-65	9.3	36	4.1	5	1.4	23760	10.2	19640	33	0.5
08-37.5717-104.1072-2-15-			0-C28207				59320	-0.08	532	82990	65	-74	11.1	52	5.8	5	1.6	29220	9.3	19700	35	0.4
08-37.5472-104.1131-2-15-			0-C28208				49400	-0.07	488	106400	47	-63	8.5	32	4.1	5	1.3	24550	7.8	14250	29	0.4
08-37.5156-104.0722-2-15-			0-C28210				58310	-0.07	672	51180	51	-70	8.9	28	3.8	6	1.2	22670	9.7	19370	35	0.4
08-37.5850-104.0242-2-15-			0-C28211				53770	-0.07	494	102800	66	-69	7.9	37	4.0	5	1.5	23300	9.9	17770	34	0.4
08-37.5511-104.0269-2-15-			0-C28212				58630	-0.08	638	72130	58	-78	9.0	41	4.8	5	1.8	28220	9.7	20730	38	0.4
08-37.5217-104.0453-2-11-			0-C28214				48320	-0.09	399	116400	50	-80	8.3	34	3.6	4	1.4	19810	4.9	13790	26	0.3
08-37.8706-104.5147-2-15-			0-C28216				62370	-0.07	701	19470	61	-82	9.8	31	3.0	6	1.7	24900	10.2	20800	40	0.5
08-37.6122-104.8050-2-15-			0-C28217				68660	-0.07	978	10380	112	-83	11.3	54	-1.9	7	1.9	37610	15.2	21060	48	0.7
08-37.6658-104.8328-2-15-			0-C28218				61720	-0.10	761	14580	180	-109	14.5	99	-2.6	9	3.1	77400	29.3	22660	77	1.2
08-37.7381-104.1631-2-15-			0-C28220				49590	-0.07	428	9726	56	94	5.6	32	3.4	5	1.4	18680	17.4	18500	35	0.5
08-37.6294-104.0269-2-15-			0-C28221				49480	-0.07	554	94350	53	-69	8.4	32	3.2	5	1.2	24180	8.3	16030	25	0.3
08-37.6419-104.0358-2-15-			0-C28222				82610	-0.08	485	14290	119	-55	6.8	48	4.2	8	2.2	15830	9.9	14140	55	0.7

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																	U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn		
08-37.6417-104.2981-2-11-						0-C28138	15610	273	7543	-49	-2	8.8	4.5	-241	-3	-1	10.8	3924	88	3.4	144	0.385	
08-37.6522-104.2661-2-11-						0-C28139	9928	248	7911	61	-2	8.2	7.8	-207	-2	-1	9.8	3157	61	4.9	170	0.503	
08-37.5419-104.2672-2-15-						0-C28145	11170	352	9325	-44	-2	8.4	6.0	327	-2	-1	12.0	3435	75	5.1	84	0.322	
08-37.5361-104.2986-2-15-						0-C28146	16670	273	6326	-46	-2	6.9	2.9	-250	-2	-1	9.4	3095	95	2.8	-73	0.509	
08-37.5289-104.3225-2-15-						0-C28147	17380	252	3103	-40	-2	7.1	4.2	479	-2	-1	9.0	2310	112	2.0	76	0.578	
08-37.5008-104.3597-2-15-						0-C28148	14650	298	7020	-38	-2	8.2	5.5	265	-2	-1	12.4	3533	91	3.0	-48	0.291	
08-37.6181-104.2369-2-15-						0-C28150	9826	290	4292	-44	-2	7.7	5.1	585	-2	-1	11.5	2713	83	3.3	49	0.423	
08-37.6197-104.2514-2-15-						0-C28151	12320	363	10710	-43	-2	7.9	3.0	-262	-2	-1	8.6	3749	72	2.5	56	0.635	
08-37.6133-104.3403-2-15-						0-C28152	13030	329	9379	-40	-2	7.6	4.3	314	-2	-1	9.5	3713	95	3.9	91	0.420	
08-37.7878-104.5489-2-15-						0-C28153	12620	510	13820	42	-1	7.4	7.1	344	-1	-1	9.6	4975	109	4.5	132	0.367	
08-37.8283-104.5439-2-11-						0-C28154	14190	529	14160	93	-3	10.8	7.3	-277	-2	-2	14.8	4583	90	5.5	-75	0.229	
08-37.8519-104.5197-2-11-						0-C28156	19480	527	12380	-54	-3	9.6	4.7	-348	-2	-1	12.1	4973	104	4.0	109	0.305	
08-37.8469-104.5689-2-12-						0-C28158	12420	597	13380	-37	-2	7.7	5.0	373	-2	-1	10.1	3883	88	4.5	-30	0.371	
08-37.8472-104.5733-2-15-						0-C28159	10080	510	15920	58	-2	7.8	6.5	437	-1	-1	9.9	4438	82	5.1	90	0.328	
08-37.7725-104.6108-2-15-						0-C28160	11250	353	8075	-43	-2	8.8	5.3	969	-2	-1	7.9	3202	159	3.5	120	0.597	
08-37.8592-104.7289-2-12-						0-C28161	11730	263	6571	-51	-2	6.5	2.4	606	-3	-1	7.4	3727	88	3.4	-76	0.557	
08-37.7594-104.5167-2-15-						0-C28162	13900	491	14060	-43	-2	8.7	4.8	-272	-2	-1	10.9	4362	100	3.3	53	0.328	
08-37.4175-104.0811-2-15-						0-C28166	12230	366	7254	-32	-2	7.4	7.3	273	-1	-1	12.6	3196	78	4.4	91	0.333	
08-37.3836-104.0406-2-15-						0-C28169	8772	115	1762	-49	-2	11.5	5.0	219	-3	-2	20.8	4685	78	5.2	-78	0.400	
08-37.4733-104.0272-2-15-						0-C28173	10060	292	5967	-41	-2	5.8	2.6	541	-2	-1	7.8	3005	79	3.2	69	0.531	
08-37.4658-104.0581-2-15-						0-C28175	8740	294	4111	-40	-2	5.6	3.2	427	-2	-1	8.0	1974	67	-1.8	110	0.509	
08-37.4350-104.0058-2-15-						0-C28177	13180	380	3123	-33	-2	7.1	6.0	511	-1	-1	12.7	2685	79	4.1	113	0.385	
08-37.3792-104.2422-2-15-						0-C28180	14500	369	10530	-49	-2	8.4	6.7	-235	-2	-1	10.9	4027	93	3.8	91	0.335	
08-37.4381-104.1425-2-15-						0-C28183	12030	560	10860	-43	-2	7.2	4.1	-322	-2	-1	10.1	4044	75	4.6	91	0.345	
08-37.4028-104.2311-2-15-						0-C28185	14430	301	5279	-31	-1	6.6	3.2	628	-2	-1	6.4	1780	109	2.9	121	0.559	
08-37.4253-104.2211-2-15-						0-C28186	18350	432	6633	62	-2	9.0	7.4	497	-2	-1	12.4	3445	137	3.6	196	0.319	
08-37.5142-104.2486-2-15-						0-C28189	15040	559	11870	-47	-2	9.8	7.2	-264	-2	-1	12.5	4058	83	5.4	103	0.254	
08-37.3019-104.4694-2-15-						0-C28190	10230	458	13160	-43	-2	7.8	3.8	-284	-2	-1	8.3	4172	81	3.7	-57	0.392	
08-37.5422-104.2492-2-15-						0-C28192	14220	371	8431	-36	-2	7.4	4.1	512	-1	-1	9.2	3082	76	2.9	99	0.384	
08-37.5769-104.1567-2-11-						0-C28194	11000	507	8013	-41	-2	6.3	5.5	1274	-2	-1	11.1	3105	78	4.0	67	0.287	
08-37.5764-104.1300-2-15-						0-C28195	12710	327	7362	72	-2	8.1	7.2	437	-1	-1	13.7	3616	89	3.9	104	0.307	
08-37.5703-104.2308-2-15-						0-C28197	13790	312	5850	76	-2	9.3	6.5	501	-2	-1	11.3	3612	93	2.9	66	0.356	
08-37.5811-104.2336-2-15-						0-C28198	10340	351	7009	-31	-2	5.9	3.1	687	-1	-1	7.4	2297	78	2.9	-56	0.570	
08-37.5472-104.2678-2-11-						0-C28199	11080	406	9608	39	-2	7.1	5.8	400	-1	-1	11.6	3355	75	4.0	76	0.328	
08-37.6108-104.2233-2-15-						0-C28200	12460	255	4751	-34	-2	7.8	5.9	499	-1	-1	11.8	2875	88	3.3	-116	0.388	
08-37.6214-104.1378-2-15-						0-C28201	11740	317	6964	60	-2	7.6	5.5	565	-1	-1	10.4	3063	83	3.1	-47	0.383	
08-37.6061-104.1436-2-15-						0-C28203	11140	291	5584	-37	-2	7.0	3.0	494	-1	-1	7.5	2690	89	2.8	-60	0.607	
08-37.5403-104.1381-2-15-						0-C28204	12550	459	10100	58	-2	7.1	4.1	-239	-1	-1	9.5	3499	79	3.5	70	0.338	
08-37.5836-104.0533-2-15-						0-C28206	11730	375	8405	59	-2	6.9	5.7	564	-1	-1	10.4	3092	79	3.3	68	0.348	
08-37.5717-104.1072-2-15-						0-C28207	12900	376	7287	-37	-2	9.1	5.9	400	-1	-1	13.0	3206	82	2.5	116	0.293	
08-37.5472-104.1131-2-15-						0-C28208	12310	364	6070	-32	-2	6.8	4.0	609	-1	-1	9.6	2766	79	3.2	-84	0.405	
08-37.5156-104.0722-2-15-						0-C28210	14940	399	9044	56	-2	7.5	4.0	331	-1	-1	9.5	3316	77	3.0	85	0.357	
08-37.5850-104.0242-2-15-						0-C28211	12870	374	7564	64	-2	7.0	6.2	463	-1	-1	10.7	3001	74	5.8	-77	0.341	
08-37.5511-104.0269-2-15-						0-C28212	15020	385	9006	-38	-2	9.0	5.4	-257	-1	-1	11.5	3359	84	4.1	62	0.314	
08-37.5217-104.0453-2-11-						0-C28214	12840	585	5911	-39	-2	6.4	3.2	473	-2	-1	7.2	3173	78	-2.1	116	0.399	
08-37.8706-104.5147-2-15-						0-C28216	14040	445	14000	-34	-2	7.7	4.4	540	-1	-1	8.6	4108	81	3.4	103	0.369	
08-37.6122-104.8050-2-15-						0-C28217	11780	715	12670	82	-2	9.9	9.8	-283	-2	-1	12.6	5521	97	5.4	118	0.301	
08-37.6658-104.8328-2-15-						0-C28218	7623	1094	14260	-46	-2	13.4	12.7	-390	-2	2	18.5	10510	161	9.8	-59	0.266	
08-37.7381-104.1631-2-15-						0-C28220	8694	336	9775	59	-2	6.2	4.9	-201	-1	-1	10.8	3321	56	3.6	83	0.309	
08-37.6294-104.0269-2-15-						0-C28221	12410	399	6711	-31	-2	6.8	4.1	462	-1	-1	8.5	3272	85	3.2	-111	0.454	
08-37.6419-104.0358-2-15-						0-C28222	11240	254	5755	-29	-2	9.6	10.2	329	-2	-1	19.8	4422	70	6.5	-18	0.305	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

②

DOE SAMPLE NUMBER						U.S. SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.6811-104.0261-2-15-						0-C28224	-5	-5	-5	22	-20	-15	7	-10	-15	3	46	
08-37.6517-104.0836-2-15-						0-C28227	-5	-5	-5	23	-20	-15	7	-10	-15	2	48	
08-37.7428-104.0617-2-11-						0-C28228	-5	-5	-5	12	-20	-15	-5	-10	-15	2	35	
08-37.7178-104.0767-2-15-						0-C28229	-5	-5	-5	33	-20	19	10	-10	-15	3	33	
08-37.6303-104.0961-2-15-						0-C28230	-5	-5	-5	30	-20	16	12	-10	-15	2	36	
08-37.7367-104.1169-2-15-						0-C28232	-5	-5	-5	23	-20	20	-5	-10	-15	2	31	
08-37.7128-104.1328-2-12-						0-C28233	-5	-5	-5	19	-20	19	12	-10	-15	3	92	
08-37.7325-104.1392-2-11-						0-C28234	-5	-5	-5	15	-20	-15	20	-10	-15	3	24	
08-37.6772-104.1764-2-15-						0-C28238	-5	-5	-5	31	-20	16	7	-10	-15	3	36	
08-37.6608-104.1950-2-15-						0-C28240	-5	-5	-5	35	-20	83	15	-10	-15	3	43	
08-37.6733-104.1172-2-15-						0-C28242	-5	-5	-5	26	-20	24	12	-10	-15	2	116	
08-37.6153-104.0944-2-15-						0-C28243	-5	-5	-5	18	-20	22	6	-10	-15	3	39	
08-37.6158-104.0697-2-15-						0-C28244	-5	-5	-5	27	-20	21	11	-10	-15	2	107	
08-37.5944-104.0442-2-15-						0-C28245	-5	-5	-5	21	-20	20	6	-10	-15	3	87	
08-37.5825-104.0617-2-15-						0-C28247	-5	-5	-5	21	-20	26	16	-10	-15	2	49	
08-37.8125-104.1289-2-15-						0-C28248	-5	-5	-5	23	-20	18	8	-10	-15	3	46	
08-37.8181-104.2431-2-15-						0-C28250	-5	-5	-5	45	-20	19	17	-10	-15	-1	123	
08-37.7867-104.2433-2-15-						0-C28251	-5	-5	-5	29	-20	22	9	-10	-15	3	39	
08-37.7725-104.2333-2-11-						0-C28252	-5	-5	-5	14	-20	-15	12	-10	-15	3	24	
08-37.7533-104.2228-2-11-						0-C28253	-5	-5	-5	14	-20	-15	24	-10	-15	4	40	
08-37.7811-104.1717-2-15-						0-C28255	-5	-5	-5	24	-20	-15	7	-10	-15	2	25	
08-37.7647-104.1697-2-15-						0-C28256	-5	-5	-5	29	-20	-15	13	-10	-15	3	30	
08-37.7692-104.1194-2-15-						0-C28258	-5	-5	-5	17	-20	-15	18	-10	-15	2	41	
08-37.8731-104.1722-2-15-						0-C28259	-5	-5	-5	18	-20	26	15	-10	-15	3	30	
08-37.8400-104.1731-2-15-						0-C28260	-5	-5	-5	27	-20	-15	16	-10	-15	4	37	
08-37.8631-104.1033-2-15-						0-C28263	-5	-5	-5	20	-20	19	9	-10	-15	3	36	
08-37.8222-104.0719-2-15-						0-C28264	-5	-5	-5	31	-20	21	19	-10	-15	3	49	
08-37.7947-104.0642-2-15-						0-C28266	-5	-5	-5	33	-20	16	23	-10	22	3	32	
08-37.7792-104.0186-2-11-						0-C28267	-5	-5	-5	19	-20	23	15	-10	-15	3	33	
08-37.7611-104.0572-2-15-						0-C28268	-5	-5	-5	17	-20	-15	9	-10	-15	2	39	
08-37.7986-104.0072-2-15-						0-C28269	-5	-5	-5	24	-20	25	15	-10	-15	-1	33	
08-37.7800-104.0083-2-11-						0-C28270	-5	-5	-5	26	-20	-15	9	-10	-15	2	32	
08-37.7756-104.1097-2-15-						0-C28272	-5	-5	-5	27	-20	37	11	-10	-15	3	40	
08-37.8833-104.0286-2-11-						0-C28273	-5	-5	-5	32	-20	-15	15	-10	-15	3	34	
08-37.8819-104.0144-2-15-						0-C28274	-5	-5	-5	27	-20	-15	15	-10	-15	3	34	
08-37.8947-104.0422-2-15-						0-C28276	-5	-5	-5	24	-20	27	10	-10	-15	3	44	
08-37.9206-104.1022-2-15-						0-C28278	-5	-5	-5	15	-20	-15	8	-10	-15	3	38	
08-37.9272-104.0847-2-15-						0-C28279	-5	-5	-5	24	-20	-15	18	-10	-15	4	48	
08-37.9669-104.0553-2-15-						0-C28281	-5	-5	-5	23	-20	23	17	-10	-15	4	62	
08-37.9725-104.1106-2-15-						0-C28284	-5	-5	-5	24	-20	-15	12	-10	-15	2	46	
08-37.9525-104.2047-2-15-						0-C28285	-5	-5	-5	19	-20	-15	17	-10	-15	3	42	
08-37.9656-104.2478-2-15-						0-C28286	-5	-5	-5	23	-20	22	17	-10	-15	2	45	
08-37.9019-104.2006-2-15-						0-C28288	-5	-5	-5	33	-20	-15	19	-10	-15	3	40	
08-37.9219-104.2164-2-15-						0-C28290	-5	-5	-5	19	-20	-15	18	-10	-15	3	41	
08-37.9958-104.1836-2-15-						0-C28292	-5	-5	-5	17	-20	15	18	-10	-15	3	47	
08-37.9214-104.1331-2-15-						0-C28295	-5	-5	-5	25	-20	-15	18	-10	-15	3	53	
08-37.9361-104.1722-2-15-						0-C28296	-5	-5	-5	12	-20	-15	9	-10	-15	3	39	
08-37.6547-104.6072-2-15-						0-C28299	-5	-5	-5	-10	-20	-15	15	-10	-15	3	27	
08-37.6433-104.5917-2-15-						0-C28300	-5	-5	-5	27	-20	-15	12	-10	-15	3	30	
08-37.6564-104.5519-2-15-						0-C28302	-5	-5	-5	15	-20	-15	20	-10	-15	3	38	
08-37.6578-104.5672-2-15-						0-C28303	-5	-5	-5	20	-20	25	10	-10	-15	3	27	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	U.S. SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
08-37.6811-104.0261-2-15-						0-C28224	63740	-0.09	643	57090	71	-84	10.5	49	5.4	6	1.9	28510	10.0	21350	42	0.6	
08-37.6517-104.0636-2-15-						0-C28227	58270	-0.08	412	95270	46	-63	7.3	35	5.2	4	1.4	25410	5.9	18860	28	0.3	
08-37.7428-104.0617-2-11-						0-C28228	49240	-0.08	531	88340	46	139	8.8	32	3.3	5	1.4	20460	9.7	16480	30	0.3	
08-37.7178-104.0767-2-15-						0-C28229	57350	-0.08	579	87350	79	-73	8.3	44	4.1	6	1.8	23270	8.9	20290	35	0.5	
08-37.6303-104.0961-2-15-						0-C28230	51370	-0.08	591	116900	71	-75	10.5	46	4.9	5	1.4	30180	10.4	16400	37	0.5	
08-37.7367-104.1169-2-15-						0-C28232	48040	-0.08	485	131900	48	55	5.6	34	3.6	4	1.2	21400	6.4	13720	27	0.4	
08-37.7128-104.1528-2-12-						0-C28233	62320	-0.08	479	67530	49	-67	11.7	33	4.3	6	1.3	24600	6.5	17400	35	0.4	
08-37.7325-104.1592-2-11-						0-C28234	62140	-0.09	591	21480	107	-73	9.7	46	4.1	7	2.1	23850	13.9	20210	45	0.7	
08-37.6772-104.1764-2-15-						0-C28238	59110	-0.09	564	87240	73	-79	10.3	46	4.8	6	1.8	25270	10.8	18700	39	0.4	
08-37.6608-104.1550-2-15-						0-C28240	67070	-0.10	477	45500	57	-70	6.7	39	4.9	5	1.3	24700	7.0	22990	34	0.4	
08-37.6733-104.1172-2-15-						0-C28242	62010	-0.08	469	67530	54	-63	10.1	39	5.3	4	1.1	25540	5.6	17030	30	0.3	
08-37.6153-104.0544-2-15-						0-C28243	57400	-0.08	398	103600	69	-67	9.2	48	5.3	4	1.6	23190	7.6	15440	33	0.4	
08-37.6158-104.0697-2-15-						0-C28244	55280	-0.09	331	128500	55	-68	9.2	51	5.8	5	1.3	31640	5.5	13240	32	0.2	
08-37.5944-104.0442-2-15-						0-C28245	63950	-0.09	447	59860	49	-72	8.8	44	4.5	5	1.2	24180	6.4	19100	33	0.3	
08-37.5825-104.0617-2-15-						0-C28247	53970	-0.06	552	85240	59	-64	6.8	34	3.7	5	1.4	26180	9.2	19050	36	0.4	
08-37.8125-104.1289-2-15-						0-C28248	63350	-0.08	631	54010	90	-76	9.5	51	5.0	6	1.7	24820	10.9	24000	37	0.5	
08-37.8181-104.2431-2-15-						0-C28250	72280	-0.10	514	47200	78	-68	10.4	66	7.0	6	1.7	27190	7.0	20380	40	0.5	
08-37.7867-104.2433-2-15-						0-C28251	75380	-0.09	651	7206	58	-44	6.8	39	6.2	5	1.1	29410	7.5	18640	34	0.4	
08-37.7725-104.2333-2-11-						0-C28252	48670	-0.07	617	9376	52	-67	6.4	33	2.2	5	1.4	17590	13.9	17380	31	0.4	
08-37.7533-104.2228-2-11-						0-C28253	84880	-0.09	432	6968	130	208	8.2	54	5.0	9	2.2	19690	11.8	15440	34	0.8	
08-37.7811-104.1717-2-15-						0-C28255	46100	-0.08	474	162200	62	-72	7.3	30	2.7	4	1.5	22880	8.0	14280	30	0.3	
08-37.7647-104.1597-2-15-						0-C28256	62300	-0.09	608	18210	67	-80	8.2	41	4.2	5	1.6	24630	9.3	21560	42	0.5	
08-37.7692-104.1394-2-15-						0-C28258	65870	-0.08	689	16070	77	-76	9.7	34	4.0	7	1.7	26410	12.1	23830	43	0.5	
08-37.8731-104.1722-2-15-						0-C28259	55230	-0.07	617	83760	82	-73	7.9	41	4.2	6	1.9	25960	11.3	20670	36	0.5	
08-37.8400-104.1731-2-15-						0-C28260	69990	-0.10	693	32640	90	-96	13.5	54	5.2	7	2.1	30990	8.0	24120	46	0.6	
08-37.8631-104.1533-2-15-						0-C28263	55270	-0.08	573	84270	56	-70	8.1	36	3.9	5	1.4	23860	8.8	17390	33	0.4	
08-37.8222-104.0719-2-15-						0-C28264	64690	-0.09	564	47020	69	-73	10.3	44	5.1	6	1.5	25160	5.8	21140	37	0.3	
08-37.7947-104.0542-2-15-						0-C28266	65320	-0.09	712	16860	102	-87	8.7	64	4.4	6	2.0	25940	12.3	26130	46	0.7	
08-37.7792-104.0186-2-11-						0-C28267	46620	-0.09	605	103000	67	-100	8.5	39	4.0	5	1.6	22960	11.0	18170	42	0.5	
08-37.7611-104.0572-2-15-						0-C28268	59510	-0.09	537	60980	53	-86	7.1	35	3.8	5	1.3	23480	8.4	24300	31	0.4	
08-37.7986-104.0572-2-15-						0-C28269	53440	-0.08	662	75750	52	-79	9.6	30	3.2	5	1.4	22350	6.6	17520	28	0.3	
08-37.7800-104.0383-2-11-						0-C28270	44210	-0.08	531	146800	54	171	9.3	38	3.4	4	1.5	20780	5.2	13960	28	0.4	
08-37.7756-104.1097-2-15-						0-C28272	61230	-0.09	689	60290	75	-88	9.5	42	4.7	6	2.1	27960	10.0	20760	38	0.5	
08-37.8833-104.0286-2-11-						0-C28273	58810	-0.08	581	56430	49	-78	8.6	29	3.8	4	1.4	21790	6.9	19110	28	0.4	
08-37.8819-104.0144-2-15-						0-C28274	54900	-0.07	631	50150	58	-75	8.6	31	3.2	6	1.6	23840	13.2	18220	31	0.5	
08-37.8947-104.0422-2-15-						0-C28276	68040	-0.07	651	40330	97	-77	9.6	50	3.6	7	2.5	29410	12.5	20470	45	0.7	
08-37.9206-104.1022-2-15-						0-C28278	63850	-0.08	720	20660	91	-94	12.1	55	-2.2	7	2.3	36010	23.8	21740	58	0.8	
08-37.9272-104.0847-2-15-						0-C28279	67870	-0.09	521	31550	58	-74	9.2	50	4.9	5	1.4	25510	7.9	22660	35	0.4	
08-37.9669-104.0553-2-15-						0-C28281	69500	-0.09	571	40290	64	-76	10.4	48	5.4	6	1.6	29740	5.8	22690	40	0.3	
08-37.9725-104.1106-2-15-						0-C28284	57700	-0.07	710	34330	80	-77	8.6	34	2.8	6	1.8	24210	13.4	23770	36	0.6	
08-37.9525-104.2047-2-15-						0-C28285	68890	-0.10	673	41090	33	-96	11.9	43	4.4	7	2.0	31400	11.8	20840	49	0.6	
08-37.9656-104.2478-2-15-						0-C28286	65730	-0.08	617	33190	72	-86	9.8	38	2.4	7	1.9	26690	16.0	25090	42	0.6	
08-37.9019-104.2006-2-15-						0-C28288	56370	-0.08	566	76900	50	-82	10.1	28	3.7	5	1.5	24520	6.2	20720	38	0.4	
08-37.9219-104.2644-2-15-						0-C28290	57000	-0.06	608	31130	73	-67	6.5	33	2.9	5	1.5	18930	10.3	17470	32	0.5	
08-37.9958-104.1836-2-15-						0-C28292	67720	-0.08	849	31120	92	-88	9.8	46	5.1	7	2.4	31400	15.6	22250	50	0.6	
08-37.9214-104.1331-2-15-						0-C28295	66880	-0.10	630	34840	54	-86	8.4	29	4.3	5	1.6	22000	7.1	24330	34	0.4	
08-37.9361-104.1722-2-15-						0-C28296	60660	-0.06	603	38080	72	-78	6.4	44	4.3	6	1.5	24730	11.1	20480	40	0.5	
08-37.6547-104.6072-2-15-						0-C28299	57360	-0.18	761	62780	53	-82	7.7	32	2.5	5	1.6	24170	13.0	22770	-24	0.6	
08-37.6433-104.5917-2-15-						0-C28300	61140	-0.17	738	44950	74	-80	7.2	40	3.3	5	1.8	24040	12.9	21360	-23	0.5	
08-37.6564-104.5519-2-15-						0-C28302	69360	-0.24	846	25890	82	-87	11.1	41	4.2	6	2.2	31910	12.7	20950	-29	0.5	
08-37.6578-104.5672-2-15-						0-C28303	64710	-0.21	751	48110	58	-95	6.9	33	1.9	5	1.7	24230	10.6	24310	-27	0.4	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																	U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn		
08-37.6811-104.0261-2-15-						0-C28224	11530	404	9261	-40	-2	9.4	6.2	-278	-1	-1	12.4	4068	86	5.0	141	0.303	
08-37.6517-104.0836-2-15-						0-C28227	14950	309	5900	-36	-2	8.1	4.9	496	-1	-1	10.3	2886	89	3.9	-55	0.440	
08-37.7428-104.0617-2-11-						0-C28228	13020	345	9232	66	-2	6.1	3.8	479	-2	-1	7.7	3694	79	3.1	183	0.501	
08-37.7178-104.0767-2-15-						0-C28229	12860	411	8312	-33	-2	7.6	6.7	398	-1	-1	12.7	3840	97	4.7	103	0.357	
08-37.6303-104.0961-2-15-						0-C28230	10200	334	6645	-39	-2	8.7	5.2	542	-1	-1	12.8	2523	85	3.9	180	0.324	
08-37.7367-104.1169-2-15-						0-C28232	11980	318	6011	-36	-2	6.6	3.3	595	-1	-1	8.6	2364	77	-1.6	96	0.514	
08-37.7128-104.1328-2-12-						0-C28233	16170	413	5315	-39	-2	8.2	4.6	469	-2	-1	10.5	4116	93	3.2	147	0.442	
08-37.7325-104.1392-2-11-						0-C28234	12060	342	7815	-35	-2	8.2	8.4	-242	-1	-1	14.3	4039	81	4.6	82	0.286	
08-37.6772-104.1764-2-15-						0-C28238	14980	368	7340	-41	-2	9.0	5.7	-263	-1	-1	13.2	3833	90	4.3	79	0.325	
08-37.6608-104.1950-2-15-						0-C28240	14580	327	7741	-39	-2	8.8	3.7	457	-1	-1	9.6	3425	98	3.4	129	0.425	
08-37.6733-104.1172-2-15-						0-C28242	16550	300	6216	62	-2	8.6	3.8	457	-2	-1	9.0	3976	101	2.6	73	0.499	
08-37.6153-104.0944-2-15-						0-C28243	13720	318	4528	-34	-2	7.7	5.4	386	-1	-1	12.6	2827	102	3.3	144	0.377	
08-37.6158-104.0697-2-15-						0-C28244	14840	293	3911	85	-2	9.2	5.3	458	-1	-1	10.7	3021	98	-2.4	184	0.400	
08-37.5944-104.0442-2-15-						0-C28245	15340	376	7063	64	-3	7.9	4.0	407	-2	-1	10.0	3421	96	3.6	83	0.404	
08-37.5825-104.0617-2-15-						0-C28247	12620	328	6908	-26	-1	7.4	5.3	556	-1	-1	10.0	3124	86	3.8	113	0.415	
08-37.8125-104.1289-2-15-						0-C28248	15060	397	9411	84	-2	8.4	6.6	418	-1	-1	12.5	3709	91	4.5	79	0.276	
08-37.8181-104.2431-2-15-						0-C28250	13400	264	5161	-45	-3	10.5	5.7	323	-2	-2	16.2	3945	98	4.0	-120	0.331	
08-37.7867-104.2433-2-15-						0-C28251	9130	188	3530	44	-2	9.3	4.1	-160	-1	1	12.8	3617	84	3.0	-56	0.471	
08-37.7725-104.2333-2-11-						0-C28252	8560	283	10700	53	-2	6.0	4.1	222	-1	-1	9.1	3210	58	3.8	78	0.344	
08-37.7533-104.2228-2-11-						0-C28253	8317	122	4624	-35	-2	9.9	11.2	-174	-2	-1	21.6	4773	67	6.7	74	0.337	
08-37.7811-104.1717-2-15-						0-C28255	11180	293	6332	-35	-2	7.2	4.9	690	-1	-1	9.9	2450	72	3.1	93	0.440	
08-37.7647-104.1697-2-15-						0-C28256	12750	469	11200	-36	-2	7.9	4.5	-248	-1	-1	10.4	4023	82	3.1	78	0.299	
08-37.7692-104.1194-2-15-						0-C28258	12680	490	10280	54	-2	8.4	7.0	-255	-1	-1	12.4	3815	83	6.4	-93	0.302	
08-37.8731-104.1722-2-15-						0-C28259	11570	375	8823	-32	-2	7.5	6.4	384	-1	-1	10.7	3665	88	3.5	38	0.371	
08-37.8400-104.1731-2-15-						0-C28260	16600	659	9696	103	-3	10.8	7.4	-351	-2	-2	14.0	3655	81	4.2	147	0.217	
08-37.8631-104.1033-2-15-						0-C28263	12100	378	7915	-34	-2	7.3	3.6	456	-1	-1	9.4	3151	85	3.0	79	0.431	
08-37.8222-104.0719-2-15-						0-C28264	16150	397	7158	70	-2	9.1	4.8	316	-2	-1	11.5	4049	98	4.3	171	0.349	
08-37.7947-104.0642-2-15-						0-C28266	17520	579	11010	-36	-2	8.7	9.9	-297	-1	-1	15.5	3941	84	5.6	74	0.216	
08-37.7792-104.0186-2-11-						0-C28267	15920	565	11500	-40	-2	7.1	4.8	898	-2	-1	10.5	3203	70	4.1	78	0.280	
08-37.7611-104.0572-2-15-						0-C28268	13780	476	9889	72	-2	7.4	3.5	-273	-2	-1	10.1	3798	81	-1.9	190	0.330	
08-37.7986-104.0072-2-15-						0-C28269	11230	456	9141	-36	-2	6.7	3.8	569	-2	-1	8.0	3511	95	3.1	81	0.424	
08-37.7800-104.0083-2-11-						0-C28270	16220	523	6996	-39	-2	6.2	4.1	812	-2	-1	9.2	3370	93	4.6	139	0.316	
08-37.7756-104.1097-2-15-						0-C28272	13440	369	9217	-46	-2	9.0	6.1	490	-2	-1	11.4	3741	83	4.2	-58	0.336	
08-37.8833-104.0286-2-11-						0-C28273	10060	360	9815	-39	-2	6.8	3.6	-237	-1	-1	9.2	2922	79	2.8	-43	0.384	
08-37.8819-104.0144-2-15-						0-C28274	11100	402	10820	59	-2	6.9	4.8	387	-1	-1	9.6	4095	87	3.2	69	0.427	
08-37.8947-104.0422-2-15-						0-C28276	16910	457	10970	76	-2	8.8	9.2	353	-1	-1	13.8	4373	107	4.7	-46	0.250	
08-37.9206-104.1022-2-15-						0-C28278	12350	499	14540	82	-2	9.3	7.5	-291	-1	-1	15.0	4433	97	6.9	-50	0.261	
08-37.9272-104.0847-2-15-						0-C28279	12950	422	9327	-40	-2	8.3	3.3	336	-1	-1	10.2	3726	101	4.1	95	0.370	
08-37.9669-104.0553-2-15-						0-C28281	21490	495	7442	-44	-2	9.0	5.2	-274	-2	-1	11.9	4421	128	4.8	109	0.324	
08-37.9725-104.1106-2-15-						0-C28284	10940	383	12130	70	-2	6.8	6.5	330	-1	-1	12.5	3760	69	4.5	64	0.283	
08-37.9525-104.2047-2-15-						0-C28285	13640	437	12120	104	-2	9.6	7.0	-307	-2	-1	14.4	3269	93	5.1	87	0.235	
08-37.9656-104.2478-2-15-						0-C28286	11130	517	13980	95	-2	8.2	5.3	434	-1	-1	12.4	3841	94	4.7	119	0.306	
08-37.9019-104.2006-2-15-						0-C28288	15120	510	8399	56	-2	7.5	4.3	445	-2	-1	9.6	3355	102	3.4	-109	0.351	
08-37.9219-104.2164-2-15-						0-C28290	9481	327	11700	60	-1	6.2	7.0	258	-1	1	9.9	3431	64	3.8	29	0.306	
08-37.9958-104.1836-2-15-						0-C28292	14310	473	12730	93	-2	9.6	7.0	-283	-1	-1	15.0	3657	94	5.2	-30	0.236	
08-37.9214-104.1331-2-15-						0-C28295	13290	427	11530	64	-2	7.4	4.1	-272	-2	-1	10.3	4073	100	2.9	-61	0.348	
08-37.9361-104.1722-2-15-						0-C28296	12230	365	10690	94	-1	7.6	6.5	-245	-1	-1	11.5	3955	100	4.1	103	0.309	
08-37.6547-104.6072-2-15-						0-C28299	9896	507	12840	60	-4	6.8	5.0	-249	-1	-1	8.4	3257	88	-2.5	97	0.421	
08-37.6433-104.5917-2-15-						0-C28300	11900	429	12590	64	-4	7.4	6.5	513	-1	-1	10.6	4223	91	6.4	97	0.321	
08-37.6564-104.5519-2-15-						0-C28302	16540	535	15000	-42	-6	9.7	6.7	351	-1	-1	11.0	4630	91	-3.7	90	0.297	
08-37.6578-104.5672-2-15-						0-C28303	9528	456	14470	-39	-5	7.0	-2.4	-287	-1	-1	7.8	3570	73	-3.0	84	0.423	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						L.S. SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.6911-104.5975-2-15-						0-C28304	-5	-5	-5	24	-20	15	17	-10	-15		3	46
08-37.6883-104.5208-2-15-						0-C28305	-5	-5	-5	17	-20	-15	5	-10	-15		3	31
08-37.7206-104.5408-2-15-						0-C28306	-5	-5	-5	33	-20	15	8	-10	-15		3	38
08-37.7061-104.5858-2-15-						0-C28307	-5	-5	-5	29	-20	33	15	-10	-15		2	33
08-37.6667-104.7994-2-15-						0-C28308	-5	-5	-5	32	-20	-15	21	-10	-15		3	24
08-37.7372-104.4892-2-15-						0-C28309	-5	-5	-5	34	-20	32	21	-10	-15		3	42
08-37.6878-104.4558-2-15-						0-C28311	-5	-5	6	10	-20	-15	-5	-10	-15		3	34
08-37.6561-104.4900-2-15-						0-C28313	-5	-5	-5	33	-20	-15	24	-10	-15		3	44
08-37.6561-104.4325-2-11-						0-C28314	-5	-5	-5	33	-20	-15	14	-10	-15		3	62
08-37.6372-104.3989-2-15-						0-C28315	-5	-5	-5	27	-20	20	7	-10	-15		4	62
08-37.6289-104.3903-2-15-						0-C28316	-5	7	-5	15	-20	-15	13	-10	-15		3	90
08-37.6394-104.3750-2-11-						0-C28317	-5	-5	-5	21	-20	-15	-5	-10	-15		2	41
08-37.6647-104.4000-2-15-						0-C28319	-5	-5	-5	18	-20	-15	9	-10	-15		3	56
08-37.6781-104.4214-2-11-						0-C28320	-5	-5	-5	18	-20	-15	10	-10	-15		3	33
08-37.7747-104.4350-2-11-						0-C28324	-5	-5	-5	35	-20	26	10	-10	-15		2	48
08-37.7933-104.4169-2-15-						0-C28325	-5	-5	-5	21	-20	-15	15	-10	-15		3	32
08-37.8119-104.4567-2-15-						0-C28327	-5	-5	-5	26	-20	-15	13	-10	-15		3	55
08-37.8250-104.4558-2-99-						0-C28328	-5	-5	-5	20	-20	-15	5	-10	-15		3	47
08-37.8350-104.4539-2-11-						0-C28329	-5	-5	-5	27	-20	15	11	-10	-15		2	54
08-37.8408-104.4425-2-11-						0-C28330	-5	-5	-5	12	-20	-15	7	-10	-15		3	43
08-37.8453-104.4683-2-15-						0-C28331	-5	-5	-5	14	-20	-15	13	-10	-15		3	49
08-37.8172-104.4753-2-15-						0-C28333	-5	-5	-5	17	-20	-15	5	-10	-15		3	46
08-37.7736-104.4997-2-15-						0-C28334	-5	-5	-5	19	-20	-15	12	-10	-15		2	42
08-37.7514-104.4967-2-15-						0-C28336	-5	-5	-5	21	-20	-15	11	-10	-15		3	46
08-37.7381-104.5061-2-15-						0-C28337	-5	-5	-5	23	-20	16	7	-10	-15		3	28
08-37.7403-104.8286-2-15-						0-C28338	-5	-5	-5	41	-20	-15	12	-10	-15		1	110
08-37.7589-104.8089-2-15-						0-C28339	7	7	-5	27	-20	15	-5	-10	-15		1	27
08-37.8253-104.8289-2-15-						0-C28340	-5	-5	-5	27	-20	-15	11	-10	-15		2	74
08-37.8694-104.8289-2-15-						0-C28341	-5	-5	-5	31	-20	25	16	-10	-15		3	60
08-37.9281-104.8028-2-12-						0-C28342	-5	-5	-5	21	-20	-15	6	-10	-15		3	42
08-37.9239-104.7764-2-15-						0-C28343	-5	-5	-5	15	-20	-15	11	-10	-15		3	33
08-37.9944-104.8511-2-12-						0-C28344	-5	-5	-5	27	-20	21	5	-10	-15		3	29
08-37.8817-104.8292-2-15-						0-C28345	-5	-5	-5	29	-20	-15	7	-10	-15		3	37
08-37.4428-104.6486-2-15-						0-C28346	-5	-5	-5	22	-20	-15	8	-10	-15		3	72
08-37.4172-104.6431-2-15-						0-C28347	-5	-5	-5	22	-20	-15	8	-10	-15		2	21
08-37.3975-104.6400-2-15-						0-C28348	-5	-5	-5	18	-20	-15	5	-10	-15		3	43
08-37.7017-104.7153-2-15-						0-C28349	-5	6	-5	14	-20	-15	7	-10	-15		1	14
08-37.9744-104.6931-2-12-						0-C28350	-5	-5	-5	15	-20	-15	6	-10	-15		-1	35
08-37.7006-104.7350-2-15-						0-C28351	-5	-5	-5	10	-20	-15	-5	-10	-15		2	37
08-37.7031-104.6781-2-15-						0-C28352	-5	-5	-5	16	-20	-15	-5	-10	-15		-1	20
08-37.7450-104.6406-2-11-						0-C28353	-5	-5	-5	26	-20	-15	5	-10	-15		-1	70
08-37.7075-104.6406-2-15-						0-C28355	-5	-5	-5	12	-20	-15	8	-10	-15		2	14
08-37.6733-104.6519-2-15-						0-C28357	-5	-5	-5	22	-20	19	10	-10	-15		2	41
08-37.6708-104.6464-2-15-						0-C28358	-5	-5	-5	34	-20	15	10	-10	-15		-1	55
08-37.6586-104.7047-2-12-						0-C28360	-5	-5	-5	34	-20	27	7	-10	-15		3	33
08-37.6575-104.6972-2-15-						0-C28361	-5	-5	-5	23	-20	-15	11	-10	-15		2	21
08-37.6211-104.5922-2-15-						0-C28363	-5	-5	-5	24	-20	23	5	-10	-15		2	23
08-37.5808-104.5028-2-15-						0-C28367	-5	-5	-5	25	-20	-15	12	-10	-15		3	23
08-37.5697-104.5094-2-15-						0-C28368	-5	-5	-5	13	-20	-15	7	-10	-15		2	40
08-37.5972-104.4667-2-11-						0-C28371	-5	-5	-5	20	-20	-15	14	-10	-15		2	51
08-37.5992-104.5786-2-11-						0-C28372	-5	-5	-5	21	-20	-15	-5	-10	-15		3	42

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
08-37.6911-104.5975-2-15-			0-C28304				75050	-0.20	689	38160	61	-84	10.8	35	3.7	5	1.6	27970	7.4	24360	-31	0.4	
08-37.6883-104.5208-2-15-			0-C28305				66040	-0.20	755	34240	85	135	9.1	54	2.5	5	2.1	24750	12.8	23310	-25	0.5	
08-37.7206-104.5408-2-15-			0-C28306				71450	-0.23	871	30230	71	-86	10.5	36	2.9	5	1.9	28520	10.5	23520	52	0.7	
08-37.7061-104.5858-2-15-			0-C28307				70880	-0.26	649	27580	70	-90	9.2	54	4.8	6	1.7	34990	11.9	21700	-29	0.5	
08-37.6667-104.7994-2-15-			0-C28308				83380	-0.22	807	14040	73	-88	13.9	50	-2.2	5	1.8	32830	7.6	24170	-32	0.4	
08-37.7372-104.4892-2-15-			0-C28309				79070	-0.23	620	24590	91	-80	10.9	51	5.7	6	2.0	30390	9.0	22680	-31	0.5	
08-37.6878-104.4558-2-15-			0-C28311				56990	-0.21	641	76710	65	-74	8.3	30	-2.0	5	2.0	28710	12.4	17920	52	0.6	
08-37.6561-104.4900-2-15-			0-C28313				86360	-0.27	568	20850	63	-83	7.2	55	5.4	6	1.7	28060	6.8	23400	-31	0.4	
08-37.6561-104.4325-2-11-			0-C28314				70120	-0.22	554	44850	63	-88	9.5	30	3.3	5	1.4	26550	10.2	17470	-37	0.4	
08-37.6372-104.3989-2-15-			0-C28315				65310	-0.17	749	33650	91	-82	7.7	45	2.5	6	1.6	25090	14.0	22270	-24	0.5	
08-37.6289-104.3903-2-15-			0-C28316				54970	-0.20	715	63610	79	-73	7.7	41	3.2	5	2.0	25850	12.5	16770	55	0.6	
08-37.6394-104.3750-2-11-			0-C28317				60950	-0.20	760	62430	45	-89	6.7	26	2.7	4	1.5	19600	6.4	18860	47	0.4	
08-37.6647-104.4600-2-15-			0-C28319				66930	-0.19	611	27720	67	-80	9.4	30	3.2	5	1.6	24580	11.5	20680	-26	0.5	
08-37.6781-104.4214-2-11-			0-C28320				55810	-0.18	622	29380	85	-76	8.4	39	2.2	5	1.8	21830	17.3	21630	-20	0.5	
08-37.7747-104.4350-2-11-			0-C28324				59070	-0.26	481	112500	60	-77	9.8	51	3.9	5	1.4	29070	8.2	19640	79	0.5	
08-37.7933-104.4169-2-15-			0-C28325				75290	-0.23	937	14530	63	-99	9.7	36	3.3	6	1.7	26500	9.9	27130	46	0.4	
08-37.8119-104.4567-2-15-			0-C28327				74900	-0.20	647	27600	72	-88	10.2	37	4.2	6	1.7	27620	10.0	23810	63	0.4	
08-37.8250-104.4558-2-99-			0-C28328				66900	-0.18	800	27990	79	-87	9.0	32	2.5	5	1.8	26930	11.1	23680	-25	0.5	
08-37.8350-104.4539-2-11-			0-C28329				70390	-0.23	816	25920	93	-84	10.9	36	2.9	6	2.1	33410	16.7	25270	-27	0.6	
08-37.8408-104.4425-2-11-			0-C28330				65830	-0.22	666	22280	57	-97	9.4	29	2.9	6	1.7	25410	13.7	20340	69	0.6	
08-37.8453-104.4683-2-15-			0-C28331				74160	-0.19	641	17600	76	-90	10.9	38	3.0	6	1.8	31200	15.6	24390	51	0.5	
08-37.8172-104.4753-2-15-			0-C28333				74330	-0.21	738	26170	101	-88	10.8	39	4.7	6	2.1	30730	10.8	23210	47	0.5	
08-37.7736-104.4997-2-15-			0-C28334				68240	-0.23	848	39080	67	-86	10.8	51	-2.2	6	2.3	32510	13.8	22950	62	0.7	
08-37.7514-104.4967-2-15-			0-C28336				71150	-0.22	844	16020	61	-100	7.9	41	4.1	6	1.7	27920	10.9	25050	-26	0.5	
08-37.7381-104.5061-2-15-			0-C28337				62800	-0.18	688	44810	59	-86	8.3	30	3.2	5	1.7	27760	11.3	22750	-25	0.5	
08-37.7403-104.8286-2-15-			0-C28338				87590	-0.25	497	22110	90	682	13.1	62	6.6	5	1.8	37280	4.7	19990	-32	0.6	
08-37.7589-104.8089-2-15-			0-C28339				52010	-0.28	524	28360	209	-102	27.1	129	-2.8	9	3.0	164400	46.2	14550	133	1.2	
08-37.8253-104.8289-2-15-			0-C28340				68990	-0.22	748	32920	68	-104	9.5	44	5.1	7	1.7	36910	12.7	23720	-25	0.6	
08-37.8694-104.8289-2-15-			0-C28341				70110	-0.23	584	43240	53	171	12.4	47	5.6	5	1.3	27230	5.0	24130	-33	0.4	
08-37.9281-104.8028-2-12-			0-C28342				62110	-0.21	624	55830	90	-86	12.0	50	4.9	6	2.0	29920	9.6	21700	53	0.6	
08-37.9239-104.7764-2-15-			0-C28343				67260	-0.22	629	34990	95	-84	13.9	59	4.3	6	2.3	44110	18.0	22120	55	0.6	
08-37.9944-104.8511-2-12-			0-C28344				59500	-0.24	836	57750	58	-92	6.1	39	3.2	6	1.6	25490	12.9	19350	-32	0.5	
08-37.8817-104.8292-2-15-			0-C28345				61680	-0.19	634	85220	61	-88	9.9	38	4.5	4	1.6	26320	8.4	17430	39	0.5	
08-37.4428-104.6486-2-15-			0-C28346				64390	-0.19	785	21770	92	149	9.2	46	3.8	5	1.9	29970	18.9	18320	50	0.7	
08-37.4172-104.6431-2-15-			0-C28347				59320	-0.18	656	7998	60	-77	8.7	32	2.5	4	1.6	24900	9.6	16110	52	0.3	
08-37.3975-104.6400-2-15-			0-C28348				68680	-0.23	896	11380	77	-87	10.4	44	3.5	7	1.8	29600	17.3	23200	58	0.6	
08-37.7017-104.7153-2-15-			0-C28349				50350	-0.21	659	13700	151	-109	15.2	86	-2.1	11	3.1	83700	56.4	20060	116	1.4	
08-37.9744-104.6531-2-12-			0-C28350				60090	-0.17	746	51780	83	-78	9.5	43	3.4	5	1.9	31930	10.6	18440	61	0.5	
08-37.7006-104.7250-2-15-			0-C28351				68350	-0.21	1021	17450	94	-90	10.5	44	-2.1	6	2.3	34910	16.4	25930	63	0.7	
08-37.7031-104.6781-2-15-			0-C28352				50120	-0.22	755	17770	127	333	11.8	83	-2.2	9	2.6	77680	35.2	19400	97	1.2	
08-37.7450-104.6406-2-11-			0-C28353				58930	-0.19	557	64350	58	-81	9.6	40	4.2	4	1.4	26190	8.8	20390	-30	0.4	
08-37.7075-104.6406-2-15-			0-C28355				47340	-0.18	849	26770	122	192	9.1	70	-1.7	6	1.9	58560	17.8	25370	65	0.8	
08-37.6733-104.6519-2-15-			0-C28357				53830	-0.25	709	55420	128	199	11.6	50	-2.5	7	2.0	48460	16.8	19010	97	0.6	
08-37.6708-104.6464-2-15-			0-C28358				69980	-0.27	561	54500	79	389	10.3	56	5.0	8	1.6	34740	12.8	20530	-38	0.5	
08-37.6586-104.7047-2-12-			0-C28360				71090	-0.24	768	28740	46	-111	13.3	43	-2.4	5	1.2	29310	4.2	26300	-37	-0.2	
08-37.6575-104.6572-2-15-			0-C28361				71590	-0.19	950	12270	78	-96	12.2	37	3.1	5	2.0	27800	7.7	23200	-25	0.5	
08-37.6211-104.5522-2-15-			0-C28363				53540	-0.21	791	69980	94	-79	11.0	53	-2.1	7	1.9	37530	19.0	19580	75	0.7	
08-37.5808-104.5028-2-15-			0-C28367				66410	-0.22	724	40020	64	-93	8.6	37	3.0	6	1.7	27810	11.0	23350	-25	0.5	
08-37.5697-104.5094-2-15-			0-C28368				53430	-0.18	653	88130	69	-76	8.3	37	3.5	5	1.6	26830	12.7	17910	-24	0.6	
08-37.5972-104.4667-2-11-			0-C28371				68000	-0.24	759	28220	88	-85	8.7	50	4.4	6	2.0	25660	8.2	22360	62	0.5	
08-37.5992-104.5786-2-11-			0-C28372				68710	-0.23	918	34700	71	-89	12.5	42	4.5	6	1.9	29990	8.9	23830	42	0.5	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

4

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Nc	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
08-37.6911-104.5975-2-15-	0-C28304	14680	506	12640	-37	-5	9.0	5.8	232	-1	-1	9.4	4236	96	-3.4	111	0.367					
08-37.6883-104.5208-2-15-	0-C28305	14400	474	19330	91	-5	7.6	7.0	601	-1	-1	12.1	4638	71	5.3	65	0.270					
08-37.7206-104.5408-2-15-	0-C28306	15600	426	15430	-44	-6	9.0	5.4	483	-1	-1	9.8	4167	91	-3.4	68	0.332					
08-37.7061-104.5858-2-15-	0-C28307	13480	529	11070	-43	-6	9.3	6.5	-305	-1	-1	11.9	5068	110	-3.5	84	0.365					
08-37.6667-104.7994-2-15-	0-C28308	13140	499	13240	-41	-6	10.7	6.8	-269	-1	-1	8.7	3806	88	4.2	102	0.336					
08-37.7372-104.4892-2-15-	0-C28309	17560	476	10190	104	-6	10.4	7.9	-277	-1	-1	14.1	4438	108	5.0	118	0.272					
08-37.6878-104.4558-2-15-	0-C28311	8858	426	11120	-40	-5	8.1	7.3	467	-1	-1	9.6	3323	79	6.1	-41	0.386					
08-37.6561-104.4900-2-15-	0-C28313	12280	433	7794	-49	-7	9.7	6.5	-299	-2	-1	13.6	4840	107	-4.3	-84	0.341					
08-37.6561-104.4325-2-11-	0-C28314	14570	484	11860	-38	-5	8.1	5.4	-276	-1	-1	9.5	3866	95	2.9	-57	0.389					
08-37.6372-104.3989-2-15-	0-C28315	11680	455	15220	60	-4	7.6	8.1	349	-1	-1	11.3	4071	79	4.6	-34	0.318					
08-37.6289-104.3903-2-15-	0-C28316	9945	383	12310	62	-5	7.5	5.7	409	-1	-1	10.2	3627	75	5.7	-41	0.345					
08-37.6394-104.3750-2-11-	0-C28317	9720	415	13050	53	-5	6.3	3.7	535	-1	-1	8.4	3213	61	-2.8	-45	0.375					
08-37.6647-104.4000-2-15-	0-C28319	8774	447	13220	-34	-5	7.6	7.7	-243	-1	-1	9.3	3847	82	4.0	-89	0.366					
08-37.6781-104.4214-2-11-	0-C28320	11770	408	12300	-29	-4	6.8	8.1	336	-1	-1	10.3	4018	72	3.8	51	0.326					
08-37.7747-104.4350-2-11-	0-C28324	15080	360	8084	-46	-6	8.7	5.2	605	-1	-1	7.9	3916	109	-4.0	-50	0.646					
08-37.7933-104.4169-2-15-	0-C28325	10800	547	15070	86	-6	8.3	3.8	-317	-1	-1	10.6	4669	92	-3.5	136	0.323					
08-37.8119-104.4567-2-15-	0-C28327	12210	502	13760	-38	-5	8.6	6.6	306	-1	-1	10.0	4616	95	4.2	117	0.350					
08-37.8250-104.4558-2-99-	0-C28328	14100	468	16270	80	-5	8.0	6.7	491	-1	-1	10.4	4157	88	3.9	50	0.347					
08-37.8350-104.4539-2-11-	0-C28329	12670	447	15060	72	-6	9.6	5.8	-256	-2	-1	12.2	4213	94	-3.4	95	0.308					
08-37.8408-104.4425-2-11-	0-C28330	10470	567	14140	-40	-5	7.5	5.2	-328	-1	-1	9.1	3727	82	3.9	91	0.397					
08-37.8453-104.4683-2-15-	0-C28331	11760	546	14320	-39	-5	8.7	5.3	-286	-1	-1	10.9	5152	109	7.8	87	0.371					
08-37.8172-104.4753-2-15-	0-C28333	17940	542	12440	-38	-5	9.3	10.8	-291	-2	-1	13.1	4279	110	6.5	-65	0.267					
08-37.7736-104.4997-2-15-	0-C28334	17950	481	15010	91	-6	9.6	6.9	549	-1	-1	10.7	4448	96	-4.2	-51	0.347					
08-37.7514-104.4967-2-15-	0-C28336	10630	560	14670	74	-6	8.3	4.6	-333	-1	-1	9.9	4397	88	4.1	93	0.341					
08-37.7381-104.5061-2-15-	0-C28337	10980	487	14770	54	-5	7.7	5.2	-258	-1	-1	9.4	4208	95	5.5	-27	0.403					
08-37.7403-104.8286-2-15-	0-C28338	31490	513	10000	73	-6	13.2	8.5	406	-1	-1	14.0	4476	132	-3.6	118	0.321					
08-37.7589-104.8089-2-15-	0-C28339	14800	1329	14550	-61	-7	15.7	16.1	-355	-2	-2	28.0	12550	371	11.2	100	0.246					
08-37.8253-104.8289-2-15-	0-C28340	13440	614	16550	-45	-6	9.5	3.9	-332	-1	-1	9.5	5384	123	5.5	123	0.478					
08-37.8694-104.8289-2-15-	0-C28341	16270	436	9388	107	-6	9.0	4.4	-269	-2	-1	9.0	3956	182	-3.7	134	0.457					
08-37.9281-104.8028-2-12-	0-C28342	12450	541	11470	59	-5	8.9	6.0	529	-1	-1	10.8	4397	134	-4.0	75	0.407					
08-37.9239-104.7764-2-15-	0-C28343	11870	590	15790	-41	-5	10.4	6.1	390	2	-1	12.9	5042	131	-4.5	108	0.284					
08-37.9944-104.8511-2-12-	0-C28344	12250	428	11180	65	-6	7.9	-2.8	328	2	-1	9.8	4635	129	-3.4	78	0.466					
08-37.8817-104.8292-2-15-	0-C28345	11570	425	13640	65	-5	8.0	-2.1	445	-1	-1	7.2	3658	154	-2.8	96	0.521					
08-37.4428-104.6486-2-15-	0-C28346	14180	353	14030	68	-5	8.4	7.7	282	-1	-1	13.4	3859	85	7.7	90	0.293					
08-37.4172-104.6431-2-15-	0-C28347	5576	244	17940	80	-5	6.6	3.7	-202	-1	-1	10.1	2999	56	-3.0	59	0.242					
08-37.3975-104.6400-2-15-	0-C28348	11510	417	13390	55	-5	8.9	8.1	-274	-1	-1	13.1	4054	82	5.8	106	0.353					
08-37.7017-104.7153-2-15-	0-C28349	9773	1373	15150	-43	-5	11.8	14.7	-368	2	-1	25.0	10960	185	12.0	77	0.322					
08-37.9744-104.6931-2-12-	0-C28350	10990	452	12640	64	-4	7.6	7.2	477	-1	-1	11.1	4832	108	-2.7	-53	0.341					
08-37.7006-104.7350-2-15-	0-C28351	10200	578	18230	77	-5	8.9	7.4	592	-1	-1	10.9	4388	88	-3.1	126	0.307					
08-37.7031-104.6781-2-15-	0-C28352	-4974	1199	18030	-47	-6	10.3	10.3	-398	3	-1	22.3	11480	162	7.8	203	0.248					
08-37.7450-104.6406-2-11-	0-C28353	14020	405	11880	-37	-5	7.5	5.0	559	-1	-1	7.9	3978	110	2.0	79	0.489					
08-37.7075-104.6406-2-15-	0-C28355	6153	1158	15440	-37	-4	7.4	8.3	-354	-1	-1	16.2	5800	134	4.3	-20	0.240					
08-37.6733-104.6519-2-15-	0-C28357	14240	687	11170	-46	-6	10.2	10.9	-291	2	-1	19.3	4665	127	-4.1	67	0.240					
08-37.6708-104.6464-2-15-	0-C28358	20210	675	10880	-53	-7	11.0	7.3	719	-2	-2	14.5	5310	148	5.0	127	0.343					
08-37.6586-104.7047-2-12-	0-C28360	18100	1007	12730	-49	-6	9.2	4.6	-400	-2	-1	6.2	2687	86	-3.9	-120	0.565					
08-37.6575-104.6972-2-15-	0-C28361	14700	643	16340	62	-5	8.6	6.9	-300	-1	-1	10.2	4473	72	3.9	65	0.302					
08-37.6211-104.5922-2-15-	0-C28363	10940	598	12050	-41	-5	9.5	8.2	-254	-1	-1	13.9	4137	126	5.1	124	0.329					
08-37.5808-104.5028-2-15-	0-C28367	13250	482	13430	-40	-5	8.6	-2.4	-294	-2	-1	10.8	4413	96	3.5	-48	0.327					
08-37.5697-104.5094-2-15-	0-C28368	9889	489	9664	-34	-4	8.0	6.1	-243	-1	-1	10.4	3773	116	3.0	89	0.430					
08-37.5972-104.4667-2-11-	0-C28371	16390	431	10310	85	-6	9.5	8.2	-285	-1	-1	12.4	4321	112	6.2	88	0.315					
08-37.5992-104.5786-2-11-	0-C28372	15480	528	15420	-42	-6	9.5	5.6	-267	-1	-1	9.5	3643	91	-3.3	100	0.335					

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.5881-104.4542-2-15-						0-C28373	-5	-5	-5	20	-20	-15	-5	-10	-15	2	30	
08-37.5594-104.3814-2-12-						0-C28376	-5	-5	-5	25	-20	-15	-5	-10	-15	-1	33	
08-37.5508-104.3936-2-11-						0-C28377	-5	7	-5	20	-20	-15	-5	-10	-15	2	39	
08-37.5664-104.4378-2-12-						0-C28378	-5	-5	-5	26	-20	-15	10	-10	-15	3	38	
08-37.5131-104.4656-2-12-						0-C28380	-5	-5	-5	23	-20	-15	6	-10	-15	2	37	
08-37.5150-104.4281-2-15-						0-C28381	-5	-5	-5	25	-20	22	9	-10	-15	2	41	
08-37.5383-104.3294-2-15-						0-C28383	-5	-5	-5	28	-20	22	14	-10	-15	2	68	
08-37.2864-104.2917-2-15-						0-C28385	-5	7	-5	25	-20	-15	9	-10	-15	3	26	
08-37.2961-104.3033-2-15-						0-C28386	-5	-5	-5	20	-20	18	8	-10	-15	3	38	
08-37.3539-104.2708-2-15-						0-C28387	-5	-5	-5	15	-20	-15	10	-10	-15	2	22	
08-37.5858-104.3644-2-12-						0-C28388	-5	-5	-5	25	-20	25	9	-10	-15	3	88	
08-37.5811-104.3736-2-11-						0-C28389	-5	-5	-5	16	-20	19	10	-10	-15	3	71	
08-37.5694-104.3661-2-15-						0-C28390	-5	-5	-5	25	-20	-15	11	-10	-15	3	74	
08-37.3175-104.0925-2-15-						0-C28391	-5	5	-5	26	-20	-15	14	-10	-15	3	104	
08-37.6025-104.7269-2-15-						0-C28392	-5	-5	-5	28	-20	-15	14	-10	-15	3	47	
08-37.2022-104.2539-2-15-						0-C28393	-5	-5	-5	38	-20	35	12	-10	-15	2	37	
08-37.7867-104.2519-2-15-						0-C28394	-5	-5	-5	22	-20	-15	18	-10	-15	3	45	
08-37.7975-104.2631-2-15-						0-C28396	-5	-5	-5	26	-20	-15	16	-10	-15	3	39	
08-37.7586-104.2886-2-11-						0-C28399	-5	-5	-5	18	-20	17	17	-10	-15	3	47	
08-37.7758-104.3325-2-15-						0-C28400	-5	-5	-5	26	-20	-15	12	-10	-15	3	48	
08-37.7750-104.3292-2-11-						0-C28401	-5	-5	-5	24	-20	-15	18	10	-15	2	29	
08-37.7522-104.3369-2-15-						0-C28402	-5	-5	-5	28	-20	27	18	-10	-15	4	51	
08-37.6197-104.7225-2-12-						0-C28404	-5	-5	-5	18	-20	-15	-5	-10	-15	2	21	
08-37.5344-104.7072-2-15-						0-C28405	-5	-5	-5	25	-20	-15	7	-10	-15	3	35	
08-37.5169-104.6964-2-15-						0-C28406	-5	-5	-5	19	-20	-15	12	-10	-15	3	45	
08-37.5250-104.7250-2-15-						0-C28407	-5	-5	-5	26	23	-15	12	-10	-15	3	25	
08-37.5439-104.7361-2-15-						0-C28408	-5	-5	-5	30	-20	-15	14	-10	-15	3	22	
08-37.5544-104.7294-2-15-						0-C28409	-5	-5	-5	24	-20	-15	12	-10	-15	2	39	
08-37.5406-104.6536-2-15-						0-C28410	-5	-5	-5	16	-20	-15	6	-10	-15	2	36	
08-37.5633-104.6406-2-15-						0-C28411	-5	-5	-5	12	-20	-15	-5	-10	-15	2	34	
08-37.6161-104.6433-2-12-						0-C28412	-5	-5	-5	16	-20	16	10	-10	-15	2	36	
08-37.6128-104.6497-2-15-						0-C28413	-5	-5	-5	31	-20	31	18	-10	-15	3	55	
08-37.5853-104.6417-2-15-						0-C28414	-5	-5	-5	11	-20	-15	-5	-10	-15	2	29	
08-37.5614-104.6647-2-15-						0-C28415	-5	-5	-5	34	-20	-15	15	-10	-15	3	36	
08-37.3892-104.2694-2-15-						0-C28418	-5	-5	-5	29	-20	23	6	-10	-15	2	24	
08-37.4264-104.2853-2-15-						0-C28420	-5	-5	-5	24	-20	20	14	-10	-15	3	48	
08-37.4347-104.2783-2-15-						0-C28421	-5	-5	-5	31	-20	18	17	-10	-15	3	49	
08-37.4103-104.3186-2-15-						0-C28423	-5	-5	-5	16	-20	18	16	-10	-15	2	63	
08-37.4031-104.3397-2-15-						0-C28424	-5	7	-5	25	-20	-15	14	-10	-15	3	44	
08-37.4981-104.3017-2-15-						0-C28426	-5	-5	-5	20	-20	-15	7	-10	-15	2	70	
08-37.4825-104.3631-2-15-						0-C28427	-5	-5	-5	21	-20	-15	7	-10	-15	2	48	
08-37.4503-104.3603-2-11-						0-C28429	-5	-5	-5	28	-20	17	8	-10	-15	3	40	
08-37.0786-104.1275-2-15-						0-C28431	-5	-5	-5	29	-20	-15	7	-10	-15	2	41	
08-37.0161-104.1611-2-11-						0-C28432	-5	-5	-5	37	-20	18	18	-10	-15	3	40	
08-37.0467-104.1614-2-15-						0-C28433	-5	-5	-5	33	-20	39	17	-10	-15	2	55	
08-37.0561-104.1803-2-15-						0-C28434	-5	-5	-5	38	-20	27	19	-10	-15	3	48	
08-37.0803-104.1819-2-12-						0-C28435	-5	-5	-5	40	-20	32	25	-10	-15	3	54	
08-37.1142-104.1639-2-15-						0-C28436	-5	-5	-5	19	-20	-15	-5	-10	-15	2	36	
08-37.1186-104.1936-2-12-						0-C28437	-5	-5	-5	30	-20	16	16	-10	-15	3	69	
08-37.0906-104.2247-2-15-						0-C28438	-5	-5	-5	22	-20	22	6	-10	-15	1	45	
08-37.0386-104.2719-2-15-						0-C28439	-5	-5	-5	20	-20	18	10	-10	-15	3	46	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
08-37.5881-104.4542-2-15-			0-C28373			56580	-0.19	738	78040	45	-81	5.1	26	2.7	4	1.2	18280	7.2	21020	65	0.3		
08-37.5594-104.3814-2-12-			0-C28376			42680	-0.17	434	204500	37	-60	6.4	30	3.4	4	0.9	22230	2.4	9642	-30	-0.2		
08-37.5508-104.3936-2-11-			0-C28377			57080	-0.20	448	114400	66	-73	7.7	39	5.0	4	1.6	22910	7.6	16270	37	0.3		
08-37.5664-104.4378-2-12-			0-C28378			60610	-0.24	695	90210	77	-76	8.8	46	4.8	6	1.7	31320	10.9	18140	53	0.5		
08-37.5131-104.4656-2-12-			0-C28380			57180	-0.22	702	129900	40	-75	9.4	35	4.3	5	1.1	31330	5.1	15060	-27	0.3		
08-37.5150-104.4281-2-15-			0-C28381			64470	-0.19	554	66510	44	-75	8.8	28	4.5	4	1.3	22480	6.2	19970	-29	0.3		
08-37.5383-104.3294-2-15-			0-C28383			65500	-0.19	423	52010	73	-59	9.2	56	6.4	5	1.4	27270	7.0	20100	-24	0.4		
08-37.2864-104.2917-2-15-			0-C28385			51770	-0.20	623	51400	51	236	7.3	47	5.5	5	1.5	22830	10.5	17910	-28	0.5		
08-37.2961-104.3033-2-15-			0-C28386			52130	-0.20	501	61140	43	430	3.4	23	4.0	4	1.0	17180	7.0	16150	39	0.3		
08-37.3539-104.2708-2-15-			0-C28387			48330	-0.15	468	63130	36	-68	6.8	30	3.5	3	1.1	17390	6.3	13060	-27	0.4		
08-37.5858-104.3644-2-12-			0-C28388			73760	-0.21	400	57640	71	-60	10.5	67	6.7	5	1.6	28850	5.8	19270	-26	0.4		
08-37.5811-104.3736-2-11-			0-C28389			70550	-0.25	467	44150	70	-56	12.5	47	7.1	5	1.4	31510	6.3	20840	-34	0.4		
08-37.5694-104.3661-2-15-			0-C28390			63790	-0.21	560	75610	48	-69	7.7	42	5.5	5	1.5	27970	6.6	16520	-26	0.3		
08-37.3175-104.0925-2-15-			0-C28391			64130	-0.18	405	99590	59	-56	9.6	50	5.4	4	1.4	27600	6.5	16130	-27	0.3		
08-37.6025-104.7269-2-15-			0-C28392			72730	-0.17	808	12260	71	-89	12.6	39	4.0	4	1.5	27110	5.7	20440	25	0.4		
08-37.2022-104.2539-2-15-			0-C28393			55520	-0.22	674	25710	74	-79	13.7	72	4.9	7	1.7	37840	21.5	16580	-25	0.7		
08-37.7867-104.2519-2-15-			0-C28394			75290	-0.24	709	12260	66	-91	8.2	36	4.3	6	1.7	24570	11.7	20890	65	0.6		
08-37.7975-104.2631-2-15-			0-C28396			73760	-0.20	650	15510	67	-80	10.1	41	4.2	6	1.8	27510	9.2	22450	-26	0.5		
08-37.7586-104.2886-2-11-			0-C28399			73130	-0.18	682	13950	92	-73	10.4	45	3.6	7	1.8	25770	12.9	18480	44	0.7		
08-37.7758-104.3325-2-15-			0-C28400			70860	-0.21	724	18200	89	-79	10.7	55	5.3	7	2.0	33960	12.5	30880	77	0.7		
08-37.7750-104.3292-2-11-			0-C28401			75520	-0.23	727	11980	81	-87	9.5	55	4.1	7	1.9	28240	13.5	21970	83	0.4		
08-37.7522-104.3369-2-15-			0-C28402			76570	-0.20	745	16920	84	-88	11.4	41	3.5	6	1.9	30550	10.4	24440	-30	0.5		
08-37.6197-104.7225-2-12-			0-C28404			57940	-0.18	967	12820	188	-95	10.8	57	2.1	12	2.9	49610	40.3	21780	97	1.5		
08-37.5344-104.7072-2-15-			0-C28405			69980	-0.24	924	17790	93	-90	12.0	44	3.6	7	1.9	35400	24.0	20760	78	0.9		
08-37.5169-104.6764-2-15-			0-C28406			75580	-0.22	882	11520	59	-109	10.1	47	3.7	5	1.6	25800	7.3	22540	52	0.5		
08-37.5250-104.7250-2-15-			0-C28407			70590	-0.17	783	8243	83	-74	10.0	35	2.2	6	1.9	30640	17.4	21020	56	0.7		
08-37.5439-104.7361-2-15-			0-C28408			75590	-0.16	909	9937	77	-77	9.5	35	3.1	5	1.5	26810	7.5	22810	-19	0.5		
08-37.5544-104.7294-2-15-			0-C28409			81150	-0.23	861	11570	80	-83	13.1	48	4.2	6	2.0	35620	11.1	19570	-24	0.5		
08-37.5406-104.6536-2-15-			0-C28410			71650	-0.19	1010	11440	80	-93	10.4	46	2.7	6	1.8	27500	15.3	22540	66	0.6		
08-37.5633-104.6406-2-15-			0-C28411			66100	-0.17	712	36760	48	110	9.0	31	2.9	4	1.6	23610	8.4	21900	43	0.4		
08-37.6161-104.6433-2-12-			0-C28412			52380	-0.15	771	46110	56	-78	9.8	32	2.6	4	1.3	22520	5.6	22450	-19	0.3		
08-37.6128-104.6497-2-15-			0-C28413			70810	-0.23	621	28660	61	-72	10.9	55	7.2	5	1.5	30660	6.6	22250	57	0.5		
08-37.5853-104.6417-2-15-			0-C28414			48970	-0.18	736	46270	114	-88	7.3	55	2.9	9	2.4	36360	34.1	19000	72	1.0		
08-37.5614-104.6647-2-15-			0-C28415			69620	-0.17	650	15630	56	-81	10.9	45	3.6	4	1.4	28040	9.1	20710	44	0.5		
08-37.3892-104.2694-2-15-			0-C28418			34600	-0.13	411	139500	35	-57	6.1	30	3.2	3	1.0	18550	4.8	8617	-19	0.2		
08-37.4264-104.2853-2-15-			0-C28420			61790	-0.22	551	29360	78	-74	8.4	39	5.1	5	1.7	29010	11.4	22670	56	0.6		
08-37.4347-104.2783-2-15-			0-C28421			64430	-0.21	513	35040	56	-78	7.0	46	5.2	6	1.3	25080	8.4	23610	47	0.4		
08-37.4103-104.3186-2-15-			0-C28423			61480	-0.17	537	45200	51	-76	8.5	30	2.6	4	1.2	22950	6.1	20190	-25	0.3		
08-37.4031-104.3397-2-15-			0-C28424			60030	-0.16	656	33930	63	-72	8.0	43	4.6	5	1.6	22710	8.1	19470	-19	0.4		
08-37.4981-104.3017-2-15-			0-C28426			59060	-0.19	698	57670	71	-70	9.8	38	3.8	6	1.7	29750	14.7	18460	78	0.6		
08-37.4825-104.3631-2-15-			0-C28427			59250	-0.19	738	70350	53	-90	8.3	35	2.5	6	1.6	24240	11.8	22480	51	0.6		
08-37.4503-104.3603-2-11-			0-C28429			65370	-0.18	815	34380	65	236	9.4	45	3.9	6	1.7	27530	13.2	20900	48	0.6		
08-37.0786-104.1275-2-15-			0-C28431			57270	-0.17	473	57440	56	-70	8.2	40	4.5	4	1.2	22180	6.4	20040	33	0.4		
08-37.0161-104.1611-2-11-			0-C28432			62240	-0.24	527	28730	72	-75	17.4	75	5.2	5	1.8	41910	8.7	19030	-29	0.5		
08-37.0467-104.1614-2-15-			0-C28433			59010	-0.21	537	43550	51	-77	7.3	46	5.5	5	1.0	24930	5.2	18300	-28	0.3		
08-37.0561-104.1603-2-15-			0-C28434			63800	-0.20	525	27060	43	172	13.4	46	5.5	4	1.2	30700	5.7	18420	51	0.2		
08-37.0803-104.1819-2-12-			0-C28435			58840	-0.18	607	30230	66	-66	12.5	74	6.8	5	1.5	33610	7.0	19180	35	0.3		
08-37.1142-104.1639-2-15-			0-C28436			49920	-0.19	358	55900	56	133	7.1	42	4.6	4	1.2	22910	9.9	13370	-25	0.4		
08-37.1186-104.1836-2-12-			0-C28437			71680	-0.25	538	34850	56	-81	9.5	70	7.4	5	1.2	28220	5.1	18140	43	0.3		
08-37.0906-104.2247-2-15-			0-C28438			48230	-0.16	350	101700	50	-62	10.6	50	4.6	4	1.3	25630	8.1	14880	-23	0.4		
08-37.0386-104.2719-2-15-			0-C28439			71920	-0.21	700	7360	86	-96	10.9	44	3.7	5	1.7	26250	11.5	19660	-29	0.4		

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																	U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn		
08-37.5881-104.4542-2-15-	0-C28373	10480	295	11510	62	-5	6.6	4.1	-243	-1	-1	7.2	3180	76	4.5	-45	0.492						
08-37.5594-104.3814-2-12-	0-C28376	9898	293	1503	-34	-4	5.5	3.3	697	-2	-1	6.8	1977	60	-2.7	97	0.607						
08-37.5508-104.3936-2-11-	0-C28377	13980	302	7956	70	-5	7.5	4.4	616	-1	-1	9.7	3081	99	5.9	-59	0.491						
08-37.5664-104.4378-2-12-	0-C28378	13150	471	8280	-43	-6	9.2	8.0	331	-1	-1	12.7	4688	93	-3.4	-59	0.359						
08-37.5131-104.4656-2-12-	0-C28380	15490	352	4425	-45	-6	7.9	-2.5	611	-2	-1	9.1	2783	99	-3.6	82	0.525						
08-37.5150-104.4281-2-15-	0-C28381	12240	358	9396	66	-5	7.3	4.1	-232	-2	-1	8.8	3846	91	-2.9	71	0.432						
08-37.5383-104.3294-2-15-	0-C28383	15140	222	5447	-34	-5	8.6	5.9	345	-1	-1	12.9	3744	107	4.2	59	0.335						
08-37.2864-104.2917-2-15-	0-C28385	20380	274	13750	63	-5	7.5	-2.4	-216	-2	-1	8.9	3524	97	5.8	-26	0.479						
08-37.2961-104.3033-2-15-	0-C28386	16350	235	9381	-37	-5	5.9	-2.1	275	-1	-1	7.0	2956	92	3.1	-42	0.493						
08-37.3539-104.2708-2-15-	0-C28387	14400	244	9181	-30	-4	5.8	-1.8	302	-1	-1	6.7	2466	92	-2.3	-71	0.512						
08-37.5858-104.3644-2-12-	0-C28388	20910	244	5314	52	-5	10.3	8.7	455	-1	-1	15.1	3915	117	5.2	-42	0.329						
08-37.5811-104.3736-2-11-	0-C28389	18040	263	5146	-45	-6	10.6	5.0	-202	-1	-1	12.0	3586	98	-3.6	122	0.302						
08-37.5694-104.3661-2-15-	0-C28390	14740	267	6595	93	-5	8.3	5.1	489	-1	-1	10.3	3616	99	5.6	-51	0.421						
08-37.3175-104.0925-2-15-	0-C28391	13690	290	4126	65	-4	8.7	6.0	414	-1	-1	13.0	2698	91	4.0	-122	0.374						
08-37.6025-104.7269-2-15-	0-C28392	11530	904	13160	59	-4	8.8	6.5	-314	-1	-1	8.8	4360	89	-3.5	86	0.326						
08-37.2022-104.2539-2-15-	0-C28393	19890	357	11080	-44	-6	9.3	7.9	309	-1	-1	16.2	5366	112	6.5	128	0.312						
08-37.7867-104.2519-2-15-	0-C28394	11690	382	12240	-42	-6	8.6	5.2	-288	-1	-1	12.0	4183	75	3.5	-143	0.309						
08-37.7975-104.2631-2-15-	0-C28396	14060	416	11760	-43	-5	8.6	6.5	-253	-1	-1	12.0	3634	76	2.8	128	0.308						
08-37.7586-104.2886-2-11-	0-C28399	10910	409	11030	54	-5	8.5	9.1	-252	-1	-1	13.1	4913	79	5.0	-52	0.318						
08-37.7758-104.3325-2-15-	0-C28400	13610	516	13680	-44	-5	10.2	6.7	454	-1	-1	14.3	3986	93	6.4	154	0.241						
08-37.7750-104.3292-2-11-	0-C28401	14440	522	9767	-43	-6	9.3	7.8	-315	-1	-1	12.4	3958	83	-3.6	135	0.286						
08-37.7522-104.3369-2-15-	0-C28402	12640	534	13780	83	-5	9.1	6.7	-272	-1	-1	12.1	4119	91	-3.7	-89	0.292						
08-37.6197-104.7225-2-12-	0-C28404	7228	1067	14710	-35	-4	9.7	15.4	-330	-1	-1	26.9	8316	111	10.9	63	0.260						
08-37.5344-104.7072-2-15-	0-C28405	10190	460	17250	-47	-6	9.5	7.8	-262	-1	-1	16.4	4641	77	7.1	98	0.271						
08-37.5169-104.6964-2-15-	0-C28406	11880	438	19480	-44	-6	8.5	5.3	-321	-1	-1	8.8	4391	70	-3.4	90	0.350						
08-37.5250-104.7250-2-15-	0-C28407	7716	484	12280	-34	-4	8.9	6.7	-230	-1	-1	11.1	4619	75	4.1	116	0.377						
08-37.5439-104.7361-2-15-	0-C28408	8715	386	14140	46	-4	8.0	4.9	458	-1	-1	9.1	4516	70	2.9	-39	0.337						
08-37.5544-104.7294-2-15-	0-C28409	11590	576	13390	-44	-6	11.7	8.1	320	-1	-1	12.4	4672	88	-3.7	71	0.280						
08-37.5406-104.6536-2-15-	0-C28410	10250	595	14660	80	-5	8.6	5.3	-305	-1	-1	11.4	4490	80	4.7	54	0.341						
08-37.5633-104.6406-2-15-	0-C28411	8617	429	13990	77	-4	7.4	3.6	446	-2	-1	7.7	3273	91	2.8	-101	0.514						
08-37.6161-104.6433-2-12-	0-C28412	9962	585	11180	-30	-4	5.4	4.0	-259	-1	-1	6.0	2056	74	3.4	64	0.457						
08-37.6128-104.6497-2-15-	0-C28413	18440	306	9913	78	-6	10.4	4.3	-223	-1	-1	10.2	3678	143	-3.7	-64	0.419						
08-37.5853-104.6417-2-15-	0-C28414	9152	713	11990	-38	-5	8.6	9.4	395	-1	1	19.0	6561	107	7.7	108	0.318						
08-37.5614-104.6647-2-15-	0-C28415	16030	491	13380	-37	-4	8.4	4.6	-243	-1	-1	9.6	3771	92	4.8	106	0.397						
08-37.3892-104.2694-2-15-	0-C28418	13990	241	5961	-26	-3	5.1	3.3	622	-1	-1	6.6	2318	85	3.3	68	0.477						
08-37.4264-104.2853-2-15-	0-C28420	14760	430	10260	-44	-5	9.0	7.3	-242	-1	-1	12.8	3526	99	4.6	-59	0.289						
08-37.4347-104.2783-2-15-	0-C28421	16450	394	9586	-43	-5	8.1	3.9	-265	-1	-1	12.3	3506	113	-3.4	140	0.322						
08-37.4103-104.3186-2-15-	0-C28423	17400	321	10630	-35	-4	7.0	3.5	-221	-1	-1	8.8	3044	90	2.8	161	0.384						
08-37.4031-104.3397-2-15-	0-C28424	15160	342	10940	67	-4	7.4	4.6	-222	-1	-1	10.1	3360	98	4.8	83	0.347						
08-37.4981-104.3017-2-15-	0-C28426	11630	393	10870	67	-5	8.7	6.4	446	-1	-1	10.4	3820	90	4.0	89	0.374						
08-37.4825-104.3631-2-15-	0-C28427	12640	574	11500	-39	-5	7.1	6.0	-301	-1	-1	8.7	3368	72	-3.7	-56	0.410						
08-37.4503-104.3603-2-11-	0-C28429	13920	463	12820	-38	-5	8.7	5.1	-255	-1	-1	10.8	4167	85	5.5	85	0.403						
08-37.0786-104.1275-2-15-	0-C28431	15150	349	8804	-34	-4	7.1	5.7	382	-1	-1	9.4	3639	106	3.9	127	0.367						
08-37.0161-104.1611-2-11-	0-C28432	19010	547	9434	65	-6	10.0	7.1	-258	-1	-1	11.6	4395	125	5.3	-105	0.347						
08-37.0467-104.1614-2-15-	0-C28433	25470	248	8454	-46	-5	7.4	-2.4	-245	-1	-1	9.0	3783	111	-3.6	103	0.463						
08-37.0561-104.1803-2-15-	0-C28434	21700	363	9326	-40	-5	7.9	4.0	-243	-1	-1	9.8	3854	114	-3.3	199	0.395						
08-37.0803-104.1819-2-12-	0-C28435	19180	402	8573	-37	-5	8.5	4.8	355	-1	-1	10.4	3667	120	4.1	-50	0.379						
08-37.1142-104.1639-2-15-	0-C28436	18490	187	10580	-38	-5	7.1	-2.3	287	-2	-1	10.8	3340	96	4.8	121	0.374						
08-37.1186-104.1936-2-12-	0-C28437	25320	293	8414	74	-6	9.4	-2.7	-280	-1	-1	11.2	4041	127	-3.8	173	0.390						
08-37.0906-104.2247-2-15-	0-C28438	14680	258	7439	-32	-4	8.0	-1.9	452	-1	-1	8.6	3219	128	-2.9	-93	0.581						
08-37.0386-104.2719-2-15-	0-C28439	8992	580	14480	-41	-5	8.8	7.7	-319	-1	-2	12.0	5573	81	5.4	77	0.296						

[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.1008-104.3222-2-15-						0-C28440	-5	-5	-5	-10	-20	-15	8	-10	-15	2	27	
08-37.0964-104.2864-2-15-						0-C28441	-5	-5	-5	39	-20	27	31	-10	-15	3	45	
08-37.0797-104.2856-2-15-						0-C28442	-5	-5	-5	37	-20	-15	13	-10	22	2	50	
08-37.0739-104.2794-2-15-						0-C28443	-5	-5	-5	27	-20	-15	18	-10	-15	3	53	
08-37.1472-104.3642-2-15-						0-C28444	-5	-5	-5	39	-20	17	25	-10	-15	3	47	
08-37.1450-104.3636-2-15-						0-C28445	-5	-5	-5	44	-20	54	23	-10	-15	2	36	
08-37.1261-104.3700-2-11-						0-C28446	-5	-5	-5	29	-20	19	17	-10	-15	3	48	
08-37.1486-104.3097-2-15-						0-C28447	-5	-5	-5	31	-20	-15	21	-10	-15	3	36	
08-37.1464-104.3081-2-15-						0-C28448	-5	-5	-5	25	-20	-15	16	-10	-15	2	55	
08-37.1406-104.2947-2-15-						0-C28449	-5	-5	-5	41	-20	41	5	-10	-15	3	27	
08-37.1600-104.2839-2-15-						0-C28450	-5	-5	-5	15	-20	-15	5	-10	-15	2	29	
08-37.1753-104.2897-2-15-						0-C28451	-5	-5	-5	27	-20	25	20	-10	-15	2	41	
08-37.1808-104.2964-2-15-						0-C28452	-5	-5	-5	40	-20	21	16	-10	-15	3	70	
08-37.1858-104.2942-2-15-						0-C28453	-5	-5	-5	37	-20	16	18	-10	-15	3	47	
08-37.1861-104.3339-2-15-						0-C28454	-5	-5	-5	50	-20	37	28	-10	-15	3	45	
08-37.2244-104.3239-2-15-						0-C28455	-5	-5	-5	37	-20	19	28	-10	-15	2	50	
08-37.2094-104.2892-2-15-						0-C28456	-5	-5	-5	31	-20	-15	19	-10	-15	3	42	
08-37.1161-104.1142-2-12-						0-C28458	-5	-5	-5	10	-20	-15	-5	-10	-15	1	17	
08-37.1014-104.1147-2-12-						0-C28459	-5	-5	-5	21	-20	19	-5	-10	-15	1	39	
08-37.0200-104.1044-2-15-						0-C28461	-5	-5	-5	29	-20	25	12	-10	-15	2	39	
08-37.0839-104.1094-2-15-						0-C28462	-5	-5	-5	26	-20	27	8	-10	-15	2	45	
08-37.0431-104.0986-2-15-						0-C28463	-5	-5	-5	14	-20	20	-5	-10	-15	2	43	
08-37.0514-104.0511-2-12-						0-C28464	-5	-5	-5	23	-20	-15	11	-10	-15	2	36	
08-37.0300-104.0375-2-15-						0-C28465	-5	-5	-5	30	-20	-15	10	-10	-15	2	34	
08-37.0189-104.0017-2-15-						0-C28466	-5	-5	-5	36	-20	45	7	-10	-15	2	27	
08-37.0714-104.0550-2-15-						0-C28469	-5	-5	-5	24	-20	25	10	-10	-15	2	40	
08-37.1233-104.0736-2-15-						0-C28471	-5	-5	-5	27	-20	31	6	-10	-15	2	36	
08-37.2642-104.2411-2-15-						0-C28472	-5	-5	-5	16	-20	-15	12	-10	-15	2	28	
08-37.3072-104.1517-2-15-						0-C28476	-5	-5	-5	21	-20	-15	10	-10	-15	2	40	
08-37.3050-104.2269-2-12-						0-C28478	-5	-5	-5	17	-20	-15	-5	-10	-15	2	35	
08-37.3686-104.1800-2-15-						0-C28483	-5	-5	-5	23	-20	26	7	-10	-15	2	34	
08-37.3258-104.2383-2-12-						0-C28484	-5	-5	-5	30	-20	34	7	-10	-15	2	48	
08-37.3506-104.3500-2-15-						0-C28486	-5	-5	-5	24	-20	22	16	-10	-15	2	40	
08-37.3272-104.3253-2-15-						0-C28487	-5	-5	-5	23	-20	-15	10	-10	-15	3	50	
08-37.3519-104.3556-2-12-						0-C28488	-5	-5	-5	24	-20	-15	10	-10	-15	2	41	
08-37.7667-104.5361-2-11-						0-C28489	-5	-5	-5	25	-20	-15	19	-10	-15	3	33	
08-37.2367-104.0681-2-15-						0-C28491	-5	-5	-5	30	-20	22	15	-10	-15	3	47	
08-37.2278-104.0642-2-15-						0-C28492	-5	-5	-5	22	-20	-15	20	-10	-15	3	49	
08-37.1817-104.1017-2-11-						0-C28494	-5	-5	-5	21	-20	-15	14	-10	-15	2	25	
08-37.1258-104.0242-2-11-						0-C28495	-5	-5	-5	19	-20	-15	11	-10	-15	8	130	
08-37.1639-104.0167-2-11-						0-C28496	-5	-5	-5	14	-20	-15	18	-10	-15	2	59	
08-37.1617-104.0858-2-11-						0-C28499	-5	-5	-5	18	-20	-15	14	-10	-15	3	43	
08-37.1961-104.0272-2-15-						0-C28500	-5	-5	-5	14	-20	22	20	-10	-15	3	47	
08-37.1589-104.0856-2-15-						0-C28502	-5	-5	-5	37	-20	-15	15	-10	-15	3	53	
08-37.7683-104.5361-2-15-						0-C28504	-5	-5	-5	16	-20	-15	15	-10	-15	3	18	
08-37.7583-104.5386-2-15-						0-C28505	-5	-5	-5	26	-20	-15	10	-10	-15	3	36	
08-37.2700-104.1144-2-15-						0-C28506	-5	-5	-5	24	-20	-15	14	-10	-15	3	37	
08-37.2611-104.0881-2-15-						0-C28507	-5	-5	-5	25	-20	-15	8	-10	-15	3	39	
08-37.2683-104.0533-2-15-						0-C28508	-5	-5	-5	23	-20	17	11	-10	-15	2	44	
08-37.2850-104.0256-2-11-						0-C28510	-5	-5	-5	27	-20	16	9	-10	-15	2	47	
08-37.2936-104.0181-2-11-						0-C28511	-5	-5	-5	16	-20	15	15	-10	-15	2	22	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.1008-104.3222-2-15-	0-C28440	63090	-0.19	686	9583	79	-74	12.2	57	2.6	5	1.3	28400	15.7	18190	46	0.5					
08-37.0964-104.2864-2-15-	0-C28441	55190	-0.20	847	27790	49	-73	12.9	85	6.1	6	1.6	45430	12.1	14120	60	0.4					
08-37.0797-104.2856-2-15-	0-C28442	62030	-0.17	533	16160	44	-64	11.7	59	5.2	5	1.5	30490	8.3	16440	-27	0.4					
08-37.0739-104.2794-2-15-	0-C28443	58240	-0.18	484	21870	75	-65	10.7	74	6.3	5	1.7	28460	10.0	16760	48	0.5					
08-37.1472-104.3642-2-15-	0-C28444	64760	-0.20	977	21850	64	-78	17.8	51	6.0	5	1.7	45030	7.7	17920	-23	0.4					
08-37.1450-104.3636-2-15-	0-C28445	52220	-0.18	901	13550	61	-84	18.5	96	3.5	6	1.7	52290	21.3	16830	61	0.6					
08-37.1261-104.3700-2-11-	0-C28446	68530	-0.21	501	17250	62	-79	13.1	69	5.6	5	1.4	30100	12.2	21320	-28	0.5					
08-37.1486-104.3097-2-15-	0-C28447	64130	-0.19	606	13510	80	-82	13.8	56	4.8	5	1.8	33090	9.8	15330	44	0.4					
08-37.1464-104.3081-2-15-	0-C28448	60290	-0.21	607	35090	62	-68	10.7	56	6.2	5	1.8	29860	9.2	15680	56	0.4					
08-37.1406-104.2947-2-15-	0-C28449	53780	-0.22	413	158200	45	-70	11.5	45	6.9	4	1.4	29350	3.5	14740	63	-0.2					
08-37.1600-104.2339-2-15-	0-C28450	39570	-0.15	274	58270	36	-61	5.2	31	3.9	4	1.0	14990	10.1	10980	-26	0.3					
08-37.1753-104.2897-2-15-	0-C28451	51720	-0.16	778	30570	62	-78	12.5	62	3.9	5	1.5	36060	8.0	15310	-20	0.4					
08-37.1808-104.2964-2-15-	0-C28452	62800	-0.25	629	38950	67	-62	16.0	81	9.6	6	1.8	54430	4.1	15780	49	0.4					
08-37.1858-104.2942-2-15-	0-C28453	60750	-0.24	410	21720	48	-87	8.5	59	5.3	6	1.1	30470	4.6	15790	-30	0.6					
08-37.1861-104.3339-2-15-	0-C28454	60380	-0.20	579	25740	41	93	16.7	56	6.5	4	1.1	42030	6.1	15210	-31	-0.2					
08-37.2244-104.3239-2-15-	0-C28455	59800	-0.19	488	32800	72	133	14.1	66	6.3	5	1.4	38070	4.5	15530	48	0.4					
08-37.2094-104.2392-2-15-	0-C28456	59010	-0.12	470	21230	55	244	11.7	57	7.4	5	1.7	34300	6.4	17120	39	0.4					
08-37.1161-104.1142-2-12-	0-C28458	38710	-0.13	243	155600	33	802	6.6	-20	3.8	3	-0.7	17100	4.2	10840	16	-0.2					
08-37.1014-104.1147-2-12-	0-C28459	41870	-0.08	380	105800	34	924	9.3	33	5.0	4	1.1	19920	5.2	13520	24	0.2					
08-37.0200-104.1044-2-15-	0-C28461	60320	-0.09	727	46490	83	-75	15.8	88	4.6	5	2.1	32700	8.2	16960	39	0.4					
08-37.0839-104.1094-2-15-	0-C28462	48860	-0.12	448	137200	56	-72	10.4	49	5.7	4	1.4	25270	5.1	16600	31	0.4					
08-37.0431-104.0986-2-15-	0-C28463	62920	-0.10	627	57710	50	-86	7.8	40	-2.6	5	1.3	22830	6.4	15400	32	0.5					
08-37.0514-104.0511-2-12-	0-C28464	60180	-0.09	496	50170	52	253	11.9	47	4.2	5	1.3	23730	5.1	22330	27	0.3					
08-37.0300-104.0375-2-15-	0-C28465	56740	-0.08	414	85850	74	-69	10.5	60	4.0	4	1.5	28580	7.4	16660	29	0.4					
08-37.0189-104.0017-2-15-	0-C28466	52570	-0.13	496	112300	55	-82	12.7	74	3.7	3	1.5	27520	5.0	14660	39	-0.2					
08-37.0714-104.0550-2-15-	0-C28469	62980	-0.10	491	71510	48	-80	9.9	35	4.9	5	1.1	23470	5.4	20430	28	0.3					
08-37.1233-104.0736-2-15-	0-C28471	64510	-0.08	425	66670	53	-72	11.2	34	4.4	4	1.4	24350	6.7	17710	30	0.4					
08-37.2642-104.2411-2-15-	0-C28472	64430	-0.09	721	15250	87	-76	8.7	39	3.1	6	2.4	25510	17.5	21490	36	0.7					
08-37.3072-104.1517-2-15-	0-C28476	66480	-0.12	538	52160	72	-72	9.7	55	4.7	6	1.9	32900	10.9	19660	39	0.5					
08-37.3050-104.2269-2-12-	0-C28478	62150	-0.09	795	42230	64	-82	9.3	37	3.0	6	1.7	28010	14.6	19080	35	0.5					
08-37.3686-104.1800-2-15-	0-C28483	52860	-0.07	621	105200	49	-68	9.3	41	4.7	4	1.3	23480	4.6	16530	33	0.3					
08-37.3258-104.2383-2-12-	0-C28484	54600	-0.09	520	87870	60	106	8.6	46	5.9	4	1.6	22340	8.6	16980	38	0.3					
08-37.3506-104.3500-2-15-	0-C28486	62540	-0.12	528	43990	66	-73	10.9	53	7.8	5	1.8	28350	7.7	22270	42	0.3					
08-37.3272-104.3253-2-15-	0-C28487	52580	-0.08	452	62700	38	-72	6.6	21	3.1	5	1.3	19360	6.2	13980	33	0.4					
08-37.3519-104.3556-2-12-	0-C28488	49540	-0.08	329	63820	46	-68	6.8	35	3.2	4	1.2	17670	7.3	12490	27	0.3					
08-37.7667-104.5361-2-11-	0-C28489	65120	-0.09	684	17270	92	-82	9.2	50	4.0	5	2.4	28990	18.6	22520	49	0.6					
08-37.2367-104.0681-2-15-	0-C28491	67960	-0.13	591	45490	82	-78	11.2	54	5.9	6	1.7	32460	7.7	24660	45	0.5					
08-37.2278-104.0642-2-15-	0-C28492	68670	-0.10	594	16130	52	-80	8.9	39	4.5	6	1.6	22230	8.9	21310	35	0.4					
08-37.1817-104.1017-2-11-	0-C28494	48350	-0.07	334	9972	49	-56	8.3	39	3.4	5	1.3	17870	9.7	12870	30	0.4					
08-37.1258-104.0242-2-11-	0-C28495	110200	-0.11	191	13130	34	-34	4.5	53	7.1	5	1.2	16950	10.1	9556	20	0.5					
08-37.1639-104.0167-2-11-	0-C28496	62060	-0.10	471	19850	70	-52	8.5	38	3.7	6	1.8	20010	14.4	9544	41	0.6					
08-37.1617-104.0858-2-11-	0-C28499	60230	-0.11	591	28570	53	-80	8.0	41	3.9	6	1.0	19680	9.3	14520	39	0.4					
08-37.1961-104.0272-2-15-	0-C28500	65350	-0.08	529	19490	56	-73	9.1	31	3.5	5	1.5	21950	8.7	19710	34	0.4					
08-37.1589-104.0856-2-15-	0-C28502	66700	-0.10	568	40760	81	-71	8.6	50	7.9	5	1.8	27380	7.1	18980	39	0.4					
08-37.7683-104.5361-2-15-	0-C28504	57860	-0.09	672	18080	75	-74	10.8	46	-2.3	5	2.2	29730	16.0	18000	45	0.5					
08-37.7583-104.5366-2-15-	0-C28505	74450	-0.11	674	40780	64	-90	6.6	48	3.2	6	1.6	25920	9.0	22720	41	0.4					
08-37.2700-104.1144-2-15-	0-C28506	59080	-0.08	616	52500	46	-76	8.3	33	4.7	5	1.3	22440	8.4	18270	27	0.3					
08-37.2611-104.0881-2-15-	0-C28507	61220	-0.08	625	44980	78	-74	8.9	41	3.9	5	1.9	23260	9.5	22670	39	0.4					
08-37.2683-104.0533-2-15-	0-C28508	50890	-0.10	717	134700	61	-59	10.0	48	4.8	5	1.8	30000	10.6	15550	39	0.4					
08-37.2850-104.0256-2-11-	0-C28510	63210	-0.10	584	39030	44	173	7.7	42	4.0	5	1.1	23970	7.5	17070	36	0.4					
08-37.2936-104.0181-2-11-	0-C28511	49960	-0.08	311	16230	41	-48	6.5	48	3.4	4	1.0	17360	8.3	10470	33	0.3					

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb		Zn
08-37.1008-104.3222-2-15-	0	C28440	10750	363	14140	58	-5	8.3	8.7	-215	-1	-1	12.5	3943	73	4.6	61	0.274				
08-37.0964-104.2864-2-15-	0	C28441	16230	439	8853	-41	-5	8.8	4.9	-254	-1	-1	10.6	4006	122	4.5	145	0.388				
08-37.0797-104.2856-2-15-	0	C28442	17150	300	8831	63	-4	8.0	-1.9	-205	-1	-1	9.5	3442	126	-3.3	147	0.454				
08-37.0739-104.2794-2-15-	0	C28443	21400	286	8494	58	-4	8.3	6.4	-209	-1	-1	12.0	4076	116	4.5	-71	0.375				
08-37.1472-104.3642-2-15-	0	C28444	16160	484	13700	60	-5	8.7	4.3	-240	-1	-1	11.7	3590	96	-3.0	-71	0.266				
08-37.1450-104.3636-2-15-	0	C28445	9299	581	13490	66	-5	7.8	5.0	-271	-1	-1	11.1	4935	100	6.0	126	0.342				
08-37.1261-104.3700-2-11-	0	C28446	16640	373	10990	77	-5	8.5	4.4	-243	-1	-1	11.4	4402	122	4.5	110	0.355				
08-37.1486-104.3097-2-15-	0	C28447	18100	435	12600	-38	-5	7.6	7.5	-261	-1	-1	13.0	3820	108	4.8		0.275				
08-37.1464-104.3081-2-15-	0	C28448	18020	305	10420	101	-5	9.4	5.7	257	-1	-1	10.2	3881	98	-3.4	-38	0.355				
08-37.1406-104.2947-2-15-	0	C28449	16320	242	4352	-45	-6	9.1	4.1	772	-2	-1	8.4	2739	208	-3.7	166	0.850				
08-37.1600-104.2839-2-15-	0	C28450	16180	151	8494	-29	-4	4.9	3.4	269	-1	1	7.5	2423	89	-2.4	-77	0.547				
08-37.1753-104.2897-2-15-	0	C28451	15320	451	13290	-34	-4	6.9	6.3	-244	-1	-1	9.5	3646	88	3.7	90	0.337				
08-37.1808-104.2964-2-15-	0	C28452	24010	351	6047	76	-6	11.8	6.7	-223	-2	-1	11.7	3270	169	-5.0	-54	0.455				
08-37.1858-104.2942-2-15-	0	C28453	23850	441	9117	-48	-6	8.2	-2.7	-312	-2	-1	9.7	3822	128	-3.6	156	0.409				
08-37.1861-104.3339-2-15-	0	C28454	19890	670	8511	65	-5	8.2	4.9	-281	-1	-1	9.6	3368	142	-3.1	-57	0.416				
08-37.2244-104.3239-2-15-	0	C28455	20940	483	8887	79	-4	8.2	8.1	-252	-1	-1	11.0	3182	128	-3.0	-60	0.357				
08-37.2094-104.2892-2-15-	0	C28456	20990	366	11140	-68	-3	9.2	5.9	-239	-3	-1	12.3	2948	117	4.1	194	0.285				
08-37.1161-104.1142-2-12-	0	C28458	27180	395	7373	-72	-3	5.3	-1.0	2018	-4	-2	6.4	2325	74	-3.0	-101	0.703				
08-37.1014-104.1147-2-12-	0	C28459	18080	459	10020	-43	-2	5.9	3.0	646	-2	-1	6.7	2386	85	-2.2	-66	0.481				
08-37.0200-104.1044-2-15-	0	C28461	19520	584	8609	54	-2	9.8	6.5	-269	-2	-1	11.2	4756	131	3.7	-62	0.321				
08-37.0839-104.1094-2-15-	0	C28462	19350	433	5249	-65	-3	8.0	3.4	867	-3	-1	8.6	2846	123	-2.4	-97	0.417				
08-37.0431-104.0986-2-15-	0	C28463	14630	321	10030	-51	-2	7.3	3.5	-262	-3	-1	9.5	3771	103	4.0	-81	0.394				
08-37.0514-104.0511-2-12-	0	C28464	18480	417	10180	-46	-2	7.6	3.5	-262	-3	1	8.8	3784	108	2.7	-66	0.445				
08-37.0300-104.0375-2-15-	0	C28465	11890	394	7363	50	-2	8.1	5.7	552	-2	-1	10.8	4351	108	2.7	-39	0.332				
08-37.0189-104.0017-2-15-	0	C28466	15970	461	8156	-77	-3	8.8	4.4	675	-4	-2	8.1	3426	100	-3.1	-117	0.395				
08-37.0714-104.0550-2-15-	0	C28469	12620	403	7643	-50	-3	8.0	3.2	-274	-2	-1	7.4	3317	96	3.0	-79	0.431				
08-37.1233-104.0736-2-15-	0	C28471	14680	380	7676	-40	-2	7.9	4.8	-232	-2	-1	8.7	3393	92	2.8	97	0.421				
08-37.2642-104.2411-2-15-	0	C28472	12480	407	11970	85	-2	7.9	6.3	-246	-2	-1	10.5	3756	77	4.7	-62	0.390				
08-37.3072-104.1517-2-15-	0	C28476	14280	363	7865	77	-3	10.3	4.4	446	-4	-2	12.2	3917	96	-2.8	-97	0.303				
08-37.3050-104.2269-2-12-	0	C28478	11320	411	11330	-44	-2	8.2	4.7	425	-2	-1	10.7	4017	109	4.2	63	0.401				
08-37.3686-104.1800-2-15-	0	C28483	17920	553	5270	80	-2	7.9	3.9	-239	-2	-1	10.0	2343	93	3.1	147	0.284				
08-37.3258-104.2383-2-12-	0	C28484	22230	251	8499	61	-2	7.1	6.2	522	-2	-1	10.3	3205	149	3.1	131	0.484				
08-37.3506-104.3500-2-15-	0	C28486	16010	349	7738	70	-3	9.8	5.1	-239	-3	-2	12.6	3509	127	4.4	-97	0.320				
08-37.3272-104.3253-2-15-	0	C28487	15620	249	9165	-42	-2	6.4	2.6	646	-2	-1	6.6	3083	101	-1.7	-95	0.503				
08-37.3519-104.3556-2-12-	0	C28488	21100	249	7423	-40	-2	5.9	3.0	-203	-2	-1	7.8	2545	96	2.2	-56	0.468				
08-37.7667-104.5361-2-11-	0	C28489	10580	448	13160	-44	-2	8.4	8.5	-264	-2	-1	11.7	4673	98	5.4	-57	0.299				
08-37.2367-104.0681-2-15-	0	C28491	19340	502	7988	-71	-3	10.9	5.8	-275	-3	-2	14.2	3819	104	6.1	-96	0.261				
08-37.2278-104.0642-2-15-	0	C28492	11630	433	8175	-53	-3	7.6	4.4	-286	-2	-1	11.0	3990	83	3.9	153	0.335				
08-37.1817-104.1017-2-11-	0	C28494	7983	290	5849	-35	-2	5.8	4.5	-191	-2	-1	7.9	2809	58	2.4	-56	0.410				
08-37.1258-104.0242-2-11-	0	C28495	6113	137	610	-50	-3	12.5	2.7	-174	-2	-2	27.0	4931	67	2.7	-43	0.229				
08-37.1639-104.0167-2-11-	0	C28496	8345	288	4404	-54	-2	8.5	6.1	-188	-3	-2	15.2	3770	56	5.5	-88	0.248				
08-37.1617-104.0858-2-11-	0	C28499	15410	371	7563	-56	-3	6.6	3.7	-282	-2	-1	9.6	3741	67	3.8	-80	0.372				
08-37.1961-104.0272-2-15-	0	C28500	10910	425	8673	-41	-2	7.4	4.6	-243	-2	-1	8.7	3456	77	4.2	-30	0.392				
08-37.1589-104.0856-2-15-	0	C28502	17060	400	6552	-48	-2	9.2	6.8	-250	-2	-1	12.4	3937	100	3.2	-57	0.304				
08-37.7683-104.5361-2-15-	0	C28504	11190	423	13460	77	-2	8.6	6.7	388	-2	-1	9.5	3789	87	4.9	-68	0.313				
08-37.7583-104.5386-2-15-	0	C28505	12830	468	10930	-56	-3	8.5	3.5	-304	-2	-1	10.5	4354	98	2.9	-75	0.325				
08-37.2700-104.1144-2-15-	0	C28506	10710	361	10110	-41	-2	6.7	3.4	-229	-2	-1	8.5	2771	85	3.0	-64	0.398				
08-37.2611-104.0881-2-15-	0	C28507	13480	399	10160	-41	-2	7.7	5.9	-237	-2	-1	12.2	3830	89	4.1	-41	0.288				
08-37.2683-104.0533-2-15-	0	C28508	12840	351	3988	-53	-2	8.4	5.1	408	-2	-1	11.7	2953	81	4.3	65	0.417				
08-37.2850-104.0256-2-11-	0	C28510	11170	348	6214	-56	-3	7.1	4.9	456	-2	-1	9.4	3424	84	-2.3	83	0.497				
08-37.2936-104.0181-2-11-	0	C28511	7997	189	3660	-38	-2	5.7	3.8	188	-2	-1	9.4	2658	58	2.8	105	0.364				

[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W		Be	Li
08-37.3472-104.0769-2-15-			0-C28514				-5	-5	-5	-10	-20	-15	8	-10	-15		-1	11
08-37.3439-104.0128-2-15-			0-C28516				-5	-5	-5	28	-20	26	8	-10	-15		2	109
08-37.3106-104.0550-2-15-			0-C28518				-5	-5	-5	34	-20	24	11	-10	-15		3	36
08-37.1422-104.2181-2-15-			0-C28521				-5	-5	-5	23	-20	29	15	-10	-15		3	55
08-37.1561-104.1806-2-15-			0-C28522				-5	-5	-5	34	-20	29	16	-10	-15		3	40
08-37.1611-104.1611-2-15-			0-C28523				-5	-5	-5	28	-20	-15	15	-10	-15		2	32
08-37.2003-104.2269-2-15-			0-C28524				-5	-5	-5	26	-20	18	22	-10	-15		3	50
08-37.1956-104.1333-2-15-			0-C28525				-5	-5	-5	30	-20	-15	5	-10	-15		3	34
08-37.2044-104.1528-2-15-			0-C28526				-5	-5	-5	25	-20	29	11	-10	-15		3	47
08-37.2053-104.1917-2-15-			0-C28527				-5	-5	-5	28	-20	16	18	-10	-15		3	54
08-37.2164-104.1878-2-15-			0-C28528				-5	-5	-5	24	-20	31	5	11	-15		2	44
08-37.1869-104.1400-2-12-			0-C28530				-5	-5	-5	37	-20	27	15	-10	-15		2	58
08-37.0500-104.5225-2-15-			0-C28531				-5	-5	-5	39	-20	-15	21	-10	-15		3	34
08-37.0494-104.5253-2-15-			0-C28532				-5	-5	-5	27	-20	15	12	-10	-15		2	30
08-37.0597-104.5256-2-15-			0-C28533				-5	-5	-5	26	-20	-15	16	-10	-15		3	30
08-37.0597-104.5211-2-15-			0-C28534				-5	-5	-5	23	-20	-15	23	-10	-15		3	28
08-37.1303-104.5167-2-11-			0-C28535				-5	-5	-5	24	-20	18	13	-10	-15		3	27
08-37.1331-104.5442-2-15-			0-C28536				-5	-5	-5	18	-20	-15	11	-10	-15		3	16
08-37.1228-104.5389-2-15-			0-C28537				-5	-5	-5	32	-20	-15	10	-10	-15		2	20
08-37.1303-104.5878-2-15-			0-C28538				-5	-5	-5	28	-20	-15	16	-10	-15		3	26
08-37.1306-104.5956-2-12-			0-C28539				-5	-5	-5	26	-20	-15	10	-10	-15		3	28
08-37.1694-104.5267-2-15-			0-C28540				-5	-5	-5	27	-20	-15	-5	-10	-15		3	25
08-37.0894-104.6103-2-15-			0-C28541				-5	-5	-5	29	-20	15	12	-10	-15		3	27
08-37.0886-104.6225-2-15-			0-C28542				-5	-5	-5	25	-20	-15	11	-10	-15		3	27
08-37.1211-104.5981-2-15-			0-C28543				-5	-5	-5	39	-20	20	9	-10	-15		4	41
08-37.1067-104.3300-2-12-			0-C28545				-5	-5	-5	33	-20	-15	14	-10	-15		3	32
08-37.0708-104.2597-2-15-			0-C28546				-5	-5	-5	33	-20	-15	10	-10	-15		3	27
08-37.0233-104.2617-2-11-			0-C28547				-5	-5	-5	25	-20	-15	6	-10	-15		3	28
08-37.0250-104.2806-2-11-			0-C28548				-5	-5	-5	26	-20	-15	21	-10	-15		3	22
08-37.0272-104.2831-2-11-			0-C28549				-5	-5	-5	30	-20	19	8	-10	-15		3	26
08-37.4617-104.4817-2-15-			0-C28552				-5	-5	-5	28	-20	-15	7	-10	-15		2	33
08-37.0122-104.2789-2-11-			0-C28555				-5	-5	-5	41	-20	-15	31	-10	-15		2	32
08-37.3356-104.6250-2-11-			0-C28556				-5	-5	-5	25	-20	-15	9	-10	-15		3	25
08-37.3386-104.5925-2-12-			0-C28557				-5	-5	-5	33	-20	-15	8	-10	-15		3	21
08-37.3411-104.5917-2-15-			0-C28558				-5	-5	-5	17	-20	15	10	-10	-15		3	22
08-37.3219-104.5897-2-15-			0-C28559				-5	-5	-5	21	21	-15	11	-10	-15		3	20
08-37.3728-104.5475-2-15-			0-C28560				-5	-5	-5	31	-20	-15	15	-10	-15		3	42
08-37.2764-104.5742-2-15-			0-C28562				-5	-5	-5	34	-20	-15	12	-10	-15		3	35
08-37.2806-104.5742-2-15-			0-C28563				-5	-5	-5	18	-20	-15	9	-10	-15		3	27
08-37.2806-104.5364-2-15-			0-C28565				-5	-5	-5	36	-20	-15	11	-10	-15		3	16
08-37.2819-104.5175-2-15-			0-C28566				-5	-5	-5	20	-20	-15	10	-10	-15		3	50
08-37.2958-104.5317-2-15-			0-C28567				-5	-5	-5	31	-20	-15	17	-10	-15		3	29
08-37.3231-104.5128-2-15-			0-C28569				-5	-5	-5	29	-20	30	17	-10	-15		3	27
08-37.2944-104.3758-2-15-			0-C28570				-5	-5	-5	32	-20	16	11	-10	-15		3	40
08-37.2733-104.4669-2-15-			0-C28573				-5	-5	-5	39	-20	29	19	-10	-15		3	40
08-37.3389-104.4586-2-15-			0-C28574				-5	-5	-5	32	-20	25	19	-10	-15		3	48
08-37.3528-104.4417-2-15-			0-C28575				-5	-5	-5	44	-20	34	16	-10	-15		2	45
08-37.3269-104.4247-2-15-			0-C28577				-5	-5	-5	18	-20	19	17	-10	-15		3	26
08-37.1042-104.5275-2-15-			0-C28578				-5	-5	-5	29	-20	-15	14	-10	-15		3	24
08-37.0853-104.5192-2-15-			0-C28579				-5	-5	-5	31	-20	-15	18	-10	-15		3	24
08-37.0700-104.5200-2-15-			0-C28580				-5	-5	-5	26	-20	17	17	-10	-15		3	20

[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.3531-104.7531-2-15-						0-C28582	-5	-5	-5	18	-20	-15	15	-10	-15	3	25	
08-37.3547-104.8072-2-12-						0-C28583	-5	-5	-5	27	-20	-15	-5	-10	-15	2	29	
08-37.3586-104.8133-2-12-						0-C28584	-5	-5	-5	19	-20	-15	12	-10	-15	4	27	
08-37.3631-104.8744-2-11-						0-C28585	-5	-5	-5	18	-20	-15	16	-10	-15	3	31	
08-37.3386-104.7875-2-15-						0-C28586	-5	-5	-5	15	-20	-15	9	-10	-15	3	17	
08-37.3056-104.7758-2-15-						0-C28588	-5	-5	-5	18	-20	-15	14	-10	-15	3	24	
08-37.3206-104.8392-2-15-						0-C28589	-5	-5	-5	22	-20	-15	18	-10	-15	3	24	
08-37.3044-104.7981-2-15-						0-C28590	-5	-5	-5	26	-20	16	12	-10	-15	3	24	
08-37.4533-104.8097-2-15-						0-C28592	-5	-5	-5	24	-20	-15	10	-10	-15	4	26	
08-37.4547-104.7633-2-11-						0-C28594	-5	-5	-5	13	-20	-15	7	-10	-15	3	17	
08-37.4586-104.7536-2-15-						0-C28595	-5	-5	-5	20	-20	-15	11	-10	-15	3	22	
08-37.4294-104.8444-2-11-						0-C28596	-5	-5	-5	-10	-20	-15	5	-10	-15	3	15	
08-37.4289-104.8453-2-12-						0-C28597	-5	-5	-5	17	-20	-15	11	-10	-15	3	23	
08-37.4389-104.7875-2-11-						0-C28598	-5	-5	-5	16	-20	-15	11	-10	-15	3	18	
08-37.4358-104.7992-2-12-						0-C28599	-5	-5	-5	19	-20	18	11	-10	-15	3	17	
08-37.4267-104.7739-2-15-						0-C28600	-5	-5	-5	45	-20	-15	12	-10	-15	3	26	
08-37.4281-104.7675-2-11-						0-C28601	-5	-5	-5	33	-20	-15	7	-10	-15	4	30	
08-37.3828-104.8058-2-15-						0-C28602	-5	-5	-5	25	-20	19	17	-10	-15	3	20	
08-37.3847-104.8025-2-15-						0-C28603	-5	-5	-5	14	-20	-15	13	-10	-15	3	17	
08-37.3794-104.7542-2-15-						0-C28604	-5	-5	-5	23	-20	-15	18	-10	-15	4	41	
08-37.9694-104.7875-2-11-						0-C28605	-5	-5	-5	17	-20	-15	7	-10	-15	3	28	
08-37.9694-104.8194-2-15-						0-C28606	-5	-5	-5	17	-20	26	10	-10	-15	3	35	
08-37.9744-104.8167-2-15-						0-C28607	-5	-5	-5	14	-20	-15	-5	-10	-15	3	33	
08-37.9122-104.8408-2-15-						0-C28608	-5	-5	-5	23	-20	28	14	-10	-15	2	30	
08-37.4997-104.8128-2-15-						0-C28610	-5	-5	-5	31	-20	15	9	-10	-15	3	25	
08-37.7675-104.8664-2-15-						0-C28611	-5	-5	-5	13	-20	-15	7	-10	-15	4	41	
08-37.7958-104.7686-2-11-						0-C28612	-5	-5	-5	18	-20	-15	16	-10	-15	3	36	
08-37.7806-104.8283-2-15-						0-C28614	-5	-5	-5	22	-20	-15	9	-10	-15	3	45	
08-37.7889-104.8206-2-15-						0-C28615	-5	-5	-5	28	-20	22	22	-10	-15	3	50	
08-37.8081-104.8228-2-15-						0-C28616	-5	-5	-5	31	-20	18	20	-10	-15	3	47	
08-37.8419-104.8306-2-15-						0-C28618	-5	-5	-5	22	-20	-15	15	-10	-15	3	54	
08-37.8558-104.8300-2-15-						0-C28619	-5	-5	-5	29	-20	-15	12	-10	-15	4	45	
08-37.8353-104.7919-2-15-						0-C28620	-5	-5	-5	32	-20	-15	18	-10	-15	3	36	
08-37.8397-104.7867-2-12-						0-C28621	-5	-5	-5	30	-20	-15	5	-10	-15	3	42	
08-37.4706-104.8242-2-15-						0-C28622	-5	-5	-5	23	-20	-15	-5	-10	-15	3	18	
08-37.8475-104.7717-2-15-						0-C28623	-5	-5	-5	29	-20	-15	17	-10	-15	3	28	
08-37.8614-104.7669-2-11-						0-C28624	-5	-5	-5	23	-20	-15	13	-10	-15	3	30	
08-37.8725-104.7867-2-11-						0-C28625	-5	-5	-5	24	-20	15	11	-10	-15	3	39	
08-37.8806-104.7583-2-11-						0-C28626	-5	-5	-5	32	-20	-15	9	-10	-15	3	41	
08-37.8819-104.7567-2-15-						0-C28627	-5	-5	-5	23	-20	-15	10	-10	-15	3	43	
08-37.9931-104.7700-2-15-						0-C28628	-5	-5	-5	12	-20	15	5	-10	-15	3	26	
08-37.9686-104.7600-2-15-						0-C28629	-5	-5	-5	21	-20	-15	10	-10	-15	3	26	
08-37.9503-104.7783-2-12-						0-C28630	-5	-5	-5	20	-20	30	6	-10	-15	2	19	
08-37.9472-104.7750-2-15-						0-C28631	-5	-5	-5	19	-20	16	15	-10	-15	2	34	
08-37.9314-104.7578-2-15-						0-C28632	-5	-5	-5	22	-20	-15	14	-10	-15	3	36	
08-37.7372-104.8364-2-15-						0-C28633	-5	-5	-5	15	-20	-15	10	-10	-15	2	19	
08-37.7400-104.8361-2-11-						0-C28634	-5	-5	-5	11	-20	-15	11	-10	-15	2	17	
08-37.6747-104.7667-2-15-						0-C28635	-5	-5	-5	21	-20	-15	6	-10	-15	2	15	
08-37.6883-104.7686-2-15-						0-C28636	-5	-5	-5	22	-20	22	16	-10	-15	3	23	
08-37.6889-104.7964-2-15-						0-C28638	-5	-5	-5	24	-20	-15	6	-10	-15	3	20	
08-37.6792-104.8056-2-15-						0-C28639	-5	-5	-5	36	-20	19	13	-10	-15	3	24	

DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION								
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umh/cm)	SCINTILLATION (cpm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																										
08-37.7125-104.8361-2-15-	0-028640-10/02/77-14-	15-	-C-	-	-	10-1-1-5-1-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	10-1-1-5-1-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.80		
08-37.6875-104.8422-2-15-	0-028642-10/02/77-13-	14-	-C-	-	-	12-1-1-4-6-	-1-	-2-4-3-3-1-	-9-	-	-	-	-	-	12-1-1-4-6-	-1-	-2-4-3-3-1-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.31	
08-37.6756-104.8453-2-15-	0-028643-10/02/77-12-	14-	-C-	-	-	11-1-1-4-1-	-1-	-2-4-3-2-1-	-2-	-	-	-	-	-	11-1-1-4-1-	-1-	-2-4-3-2-1-	-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.80	
08-37.6342-104.8597-2-11-	0-028645-10/02/77-12-	14-16-0-	-	-	-	9-1-1-3-6-	-2-3-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	9-1-1-3-6-	-2-3-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.60	
08-37.5631-104.7700-2-15-	0-028646-10/01/77-21-	12-	-	-	-	81-1-2-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	81-1-2-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.32	
08-37.5617-104.7669-2-15-	0-028647-10/01/77-21-	11-	-	-	-	6-1-2-4-1-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	6-1-2-4-1-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.24	
08-37.5408-104.7711-2-11-	0-028648-10/01/77-21-	9-	8-7-	-	-	104-1-1-4-6-	-2-3-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	104-1-1-4-6-	-2-3-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.73	
08-37.5361-104.7736-2-15-	0-028649-10/01/77-21-	9-	-	-	-	81-1-2-4-1-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	81-1-2-4-1-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.88	
08-37.5214-104.7836-2-99-	0-028650-10/02/77-7-	4-	-C-	-	-	13-1-1-4-1-	-1-	-2-4-2-3-1-	-9-	-	-	-	-	-	13-1-1-4-1-	-1-	-2-4-2-3-1-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.49	
08-37.5192-104.7869-2-15-	0-028651-10/01/77-21-	9-	-	-	-	115-1-2-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	115-1-2-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.54	
08-37.5853-104.7628-2-15-	0-028652-10/02/77-7-	7-	-C-	-	-	16-1-1-5-1-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	16-1-1-5-1-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.46	
08-37.5897-104.7956-2-15-	0-028653-10/02/77-8-	9-	-C-	-	-	9-1-4-4-1-	-1-	-2-2-2-3-1-	-2-	-	-	-	-	-	9-1-4-4-1-	-1-	-2-2-2-3-1-	-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.24	
08-37.5956-104.7861-2-15-	0-028654-10/02/77-8-	11-	-C-	-	-	12-1-2-4-1-	-1-	-2-3-3-2-1-	-2-	-	-	-	-	-	12-1-2-4-1-	-1-	-2-3-3-2-1-	-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.19	
08-37.5714-104.8214-2-15-	0-028655-10/02/77-8-	12-	-	-	-	127-1-2-4-1-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	127-1-2-4-1-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.21	
08-37.5303-104.8425-2-15-	0-028657-10/02/77-9-	15-	-	-	-	9-1-1-4-1-	-1-	-2-2-3-2-1-	-1-	-	-	-	-	-	9-1-1-4-1-	-1-	-2-2-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.15	
08-37.6219-104.8525-2-15-	0-028660-10/02/77-11-	17-	-C-	-	-	10-1-1-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	10-1-1-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.87	
08-37.6503-104.7919-2-15-	0-028661-10/02/77-11-	13-	-C-	-	-	104-1-1-4-1-	-1-	-2-3-3-2-1-	-2-	-	-	-	-	-	104-1-1-4-1-	-1-	-2-3-3-2-1-	-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.14	
08-37.4722-104.7381-2-15-	0-028662-10/01/77-19-	16-	-	-	-	127-1-6-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	127-1-6-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.03	
08-37.4725-104.7325-2-99-	0-028663-10/01/77-19-	15-	-	-	-	13-1-6-6-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	13-1-6-6-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.54	
08-37.4836-104.7164-2-15-	0-028664-10/01/77-19-	16-	-	-	-	173-1-6-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	173-1-6-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.53	
08-37.4656-104.7067-2-15-	0-028665-10/01/77-20-	14-	-C-	-	-	11-1-2-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	11-1-2-4-6-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00	
08-37.4497-104.6372-2-15-	0-028666-10/01/77-13-	22-	-C-	-	-	11-1-1-5-1-	-1-	-1-4-4-1-1-	-1-	-	-	-	-	-	11-1-1-5-1-	-1-	-1-4-4-1-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00	
08-37.4311-104.4267-2-15-	0-028667-10/01/77-13-	22-	-C-	-	-	115-1-1-4-1-	-1-	-2-3-2-3-1-	-1-	-	-	-	-	-	115-1-1-4-1-	-1-	-2-3-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.93	
08-37.4867-104.6408-2-15-	0-028672-10/01/77-15-	22-	-C-	-	-	10-1-6-5-6-	-1-	-2-4-3-2-1-	-1-	-	-	-	-	-	10-1-6-5-6-	-1-	-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.64	
08-37.4669-104.6886-2-15-	0-028673-10/01/77-15-	-	-	-	-	46-1-2-3-6-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	46-1-2-3-6-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.45	
08-37.3992-104.6447-2-12-	0-028674-10/01/77-16-	20-14-8-	-	-	-	8-1-1-4-6-3-2-1-	-2-2-2-2-1-	-9-	-	-	-	-	-	-	8-1-1-4-6-3-2-1-	-2-2-2-2-1-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.19	
08-37.3794-104.6814-2-15-	0-028675-10/01/77-17-	20-	-C-	-	-	9-1-1-4-6-	-1-	-2-4-2-4-1-	-9-	-	-	-	-	-	9-1-1-4-6-	-1-	-2-4-2-4-1-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.86	
08-37.4106-104.6742-2-15-	0-028676-10/01/77-17-	20-	-	-	-	92-1-1-3-1-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	92-1-1-3-1-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.32	
08-37.4094-104.6969-2-15-	0-028677-10/01/77-17-	20-	-	-	-	8-1-2-3-1-	-1-	-2-1-3-4-1-	-1-	-	-	-	-	-	8-1-2-3-1-	-1-	-2-1-3-4-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.42	
08-37.4050-104.7100-2-11-	0-028678-10/01/77-18-	19-12-8-	-	-	-	139-1-6-5-6-2-3-1-	-2-1-2-1-2-3-1-	-1-	-	-	-	-	-	-	139-1-6-5-6-2-3-1-	-2-1-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.06	
08-37.4067-104.7050-2-15-	0-028679-10/01/77-18-	22-	-C-	-	-	10-1-1-4-1-	-1-	-2-1-4-3-1-	-1-	-	-	-	-	-	10-1-1-4-1-	-1-	-2-1-4-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.52	
08-37.4011-104.6650-2-15-	0-028680-10/01/77-18-	19-	-C-	-	-	150-1-2-3-6-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	150-1-2-3-6-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.74	
08-37.2658-105.7728-2-12-	0-028681-03/04/76-11-	-3-	1-5-C-	-	-	8-1-6-6-6-1-2-2-3-3-2-2-5-	-1-	-	-	-	-	-	-	-	8-1-6-6-6-1-2-2-3-3-2-2-5-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.69	
08-37.2547-105.8258-2-13-	0-028683-03/04/76-15-	-1	3.1-C-	-	-	8-4-9-5-6-1-2-3-3-3-2-1-2-	-3-	-	-	-	-	-	-	-	8-4-9-5-6-1-2-3-3-3-2-1-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.04	
08-37.2736-105.5717-2-15-	0-028684-03/05/76-11-	-5-	-	-	-	11-3-8-4-6-	-	-3-2-3-1-	-1-	-	-	-	-	-	11-3-8-4-6-	-	-3-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.83	
08-37.2706-105.5717-2-15-	0-028685-03/05/76-11-	-5-	-	-	-	14-3-8-4-6-	-	-3-2-3-1-	-1-	-	-	-	-	-	14-3-8-4-6-	-	-3-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.16	
08-37.2322-105.5808-2-15-	0-028686-03/05/76-13-	-	-	-	-	11-4-4-6-	-	-4-2-2-1-	-1-	-	-	-	-	-	11-4-4-6-	-	-4-2-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.21	
08-37.3064-105.5867-2-97-	0-028687-03/05/76-13-	-	-	-	-	14-4-5-6-	-	-3-2-3-1-	-1-	-	-	-	-	-	14-4-5-6-	-	-3-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00	
08-37.3158-105.6097-2-15-	0-028688-03/05/76-13-	-3-	-	-	-	7-4-3-6-	-	-3-2-3-1-	-1-	-	-	-	-	-	7-4-3-6-	-	-3-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.43	
08-37.3675-105.5558-2-97-	0-028689-03/05/76-14-	2-	-	-	-	7-4-4-6-	-	-3-2-2-1-	-1-	-	-	-	-	-	7-4-4-6-	-	-3-2-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.38	
08-37.3144-105.5483-2-15-	0-028690-03/05/76-14-	-2-	-	-	-	12-4-4-6-	-	-3-2-2-1-	-1-	-	-	-	-	-	12-4-4-6-	-	-3-2-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.44	
08-37.2878-105.5017-2-15-	0-028691-03/05/76-15-	1-	-	-	-	15-1-3-6-	-	-3-2-2-2-	-1-	-	-	-	-	-	15-1-3-6-	-	-3-2-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.65	
08-37.2764-105.5231-2-15-	0-028692-03/05/76-15-	1-	-	-	-	10-1-4-6-	-	-3-2-2-2-	-3-	-	-	-	-	-	10-1-4-6-	-	-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.29	
08-37.2556-105.5158-2-15-	0-028693-03/05/76-15-	1-	-	-	-	17-4-3-6-	-1-	-3-2-1-2-	-1-	-	-	-	-	-	17-4-3-6-	-1-	-3-2-1-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.48	
08-37.3703-105.7922-2-12-	0-028701-03/06/76-14-	6-	3-2-	-	-	5-4-5-6-3-2-3-1-4-3-1-1-	-3-	-	-	-	-	-	-	5-4-5-6-3-2-3-1-4-3-1-1-	-3-	-	-	-	-	-	-	-												

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.7125-104.8361-2-15-						0-C28640	-5	-5	-5	13	-20	16	5	-10	-15		2	22
08-37.6875-104.8422-2-15-						0-C28642	-5	-5	-5	25	-20	-15	11	-10	-15		2	20
08-37.6756-104.8453-2-15-						0-C28643	-5	-5	-5	34	-20	18	10	-10	-15		2	20
08-37.6342-104.8597-2-11-						0-C28645	-5	-5	-5	28	-20	15	15	-10	-15		3	21
08-37.5631-104.7700-2-15-						0-C28646	-5	-5	-5	25	-20	-15	14	-10	-15		3	15
08-37.5617-104.7669-2-15-						0-C28647	-5	-5	-5	23	-20	-15	10	-10	-15		2	18
08-37.5408-104.7711-2-11-						0-C28648	-5	-5	-5	23	-20	19	7	-10	-15		3	21
08-37.5361-104.7736-2-15-						0-C28649	-5	-5	-5	19	-20	-15	12	-10	-15		2	22
08-37.5214-104.7836-2-99-						0-C28650	-5	-5	-5	23	-20	-15	8	-10	-15		3	23
08-37.5192-104.7869-2-15-						0-C28651	-5	-5	-5	21	-20	-15	7	-10	-15		3	20
08-37.5853-104.7628-2-15-						0-C28652	-5	-5	-5	30	-20	-15	10	-10	-15		3	28
08-37.5897-104.7956-2-15-						0-C28653	-5	-5	-5	31	-20	18	11	-10	-15		2	27
08-37.5956-104.7861-2-15-						0-C28654	-5	-5	-5	29	-20	-15	12	-10	-15		2	28
08-37.5714-104.8214-2-15-						0-C28655	-5	-5	-5	21	-20	-15	11	-10	17		2	25
08-37.5303-104.8425-2-15-						0-C28657	-5	-5	-5	17	-20	-15	10	-10	-15		2	15
08-37.6219-104.8525-2-15-						0-C28660	-5	-5	-5	30	-20	-15	9	-10	-15		3	29
08-37.6503-104.7919-2-15-						0-C28661	-5	-5	-5	23	-20	-15	-5	-10	-15		2	17
08-37.4722-104.7381-2-15-						0-C28662	-5	-5	-5	18	-20	-15	7	-10	-15		3	23
08-37.4725-104.7325-2-99-						0-C28663	-5	-5	-5	26	-20	-15	10	-10	-15		2	28
08-37.4836-104.7164-2-15-						0-C28664	-5	-5	-5	24	-20	-15	6	-10	-15		3	26
08-37.4656-104.7067-2-15-						0-C28665	-5	-5	-5	30	-20	-15	11	-10	-15		3	28
08-37.4497-104.4372-2-15-						0-C28666	-5	-5	-5	33	-20	-15	14	-10	-15		3	43
08-37.4311-104.4267-2-15-						0-C28667	-5	-5	-5	27	-20	21	11	-10	-15		2	28
08-37.4867-104.6408-2-15-						0-C28672	-5	-5	-5	44	-20	-15	15	-10	-15		3	54
08-37.4669-104.6686-2-15-						0-C28673	-5	-5	-5	25	-20	15	16	-10	-15		3	26
08-37.3992-104.6447-2-12-						0-C28674	-5	-5	-5	28	-20	22	11	-10	-15		3	40
08-37.3794-104.6814-2-15-						0-C28675	-5	-5	-5	31	-20	-15	13	-10	-15		2	30
08-37.4106-104.6742-2-15-						0-C28676	-5	-5	-5	23	-20	18	-5	-10	-15		2	19
08-37.4094-104.6969-2-15-						0-C28677	-5	-5	-5	11	-20	-15	5	-10	-15		2	24
08-37.4050-104.7100-2-11-						0-C28678	-5	-5	-5	25	-20	23	13	-10	-15		3	30
08-37.4067-104.7050-2-15-						0-C28679	-5	-5	-5	16	-20	16	7	-10	-15		2	28
08-37.4011-104.6650-2-15-						0-C28680	-5	-5	-5	37	-20	-15	6	-10	-15		3	35
08-37.2658-105.7728-2-12-						0-C28681	-5	-5	-5	26	-20	-15	14	-10	-15		2	33
08-37.2547-105.8258-2-13-						0-C28683	-5	-5	-5	23	-20	-15	-5	-10	-15		2	86
08-37.2736-105.5717-2-15-						0-C28684	-5	-5	-5	28	-20	-15	13	-10	-15		3	43
08-37.2706-105.5717-2-15-						0-C28685	-5	-5	-5	25	-20	-15	13	-10	-15		3	34
08-37.2922-105.5808-2-15-						0-C28686	-5	-5	-5	35	-20	-15	11	-10	-15		3	42
08-37.3064-105.5867-2-97-						0-C28687	-5	-5	-5	37	-20	36	9	-10	-15		3	44
08-37.3158-105.6097-2-15-						0-C28688	-5	-5	-5	25	-20	15	-5	-10	-15		2	25
08-37.3675-105.5558-2-97-						0-C28689	-5	-5	-5	15	-20	-15	-5	-10	-15		3	20
08-37.3144-105.5483-2-15-						0-C28690	-5	-5	-5	49	-20	-15	14	13	-15		3	31
08-37.2878-105.5017-2-15-						0-C28691	-5	-5	-5	29	-20	19	11	-10	-15		3	29
08-37.2764-105.5231-2-15-						0-C28692	-5	-5	-5	26	-20	-15	19	-10	-15		3	31
08-37.2556-105.5158-2-15-						0-C28693	-5	-5	-5	23	-20	-15	5	-10	-15		3	34
08-37.3703-105.7922-2-12-						0-C28701	-5	-5	-5	42	-20	-15	17	-10	-15		3	20
08-37.2947-105.7847-2-13-						0-C28706	-5	-5	-5	20	-20	-15	-5	-10	-15		2	19
08-37.2672-105.7964-2-15-						0-C28707	-5	-5	-5	38	-20	28	14	-10	-15		3	39
08-37.2414-105.5647-2-15-						0-C28711	-5	-5	-5	28	-20	-15	15	-10	-15		3	40
08-37.2453-105.5317-2-15-						0-C28712	-5	-5	-5	31	-20	-15	12	-10	-15		3	42
08-37.2472-105.5314-2-15-						0-C28713	-5	-5	-5	28	-20	-15	17	-10	-15		3	32
08-37.2447-105.5133-2-15-						0-C28714	-5	-5	-5	36	-20	17	11	-10	-15		3	32

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.7125-104.8361-2-15-			0-C28640			75580	-0.08	827	18370	64	-97	6.9	22	-2.0	5	1.5	21400	11.8	20230	34	0.4	
08-37.6875-104.8422-2-15-			0-C28642			70980	-0.08	819	12610	69	-85	10.6	25	-1.9	5	1.8	27910	11.7	21410	44	0.5	
08-37.6756-104.8453-2-15-			0-C28643			70300	-0.08	1058	13970	130	-85	12.7	53	-2.0	7	2.7	39660	16.5	22960	56	0.7	
08-37.6342-104.8597-2-11-			0-C28645			75670	-0.11	949	19700	104	-87	13.1	69	-2.8	7	2.7	46280	12.9	24650	66	0.7	
08-37.5631-104.7700-2-15-			0-C28646			65590	-0.08	836	12650	75	-92	9.1	42	-2.0	7	2.0	31940	24.2	23270	49	0.7	
08-37.5617-104.7569-2-15-			0-C28647			62790	-0.08	822	7931	125	-87	10.0	48	1.9	8	2.5	34830	26.6	23940	68	0.8	
08-37.5408-104.7711-2-11-			0-C28648			71740	-0.09	913	11340	156	-91	13.0	74	-2.2	8	2.6	46340	21.5	22960	74	1.0	
08-37.5361-104.7736-2-15-			0-C28649			65860	-0.10	1122	9681	114	-89	12.5	52	-2.3	8	2.7	38440	19.7	21800	56	1.0	
08-37.5214-104.7336-2-99-			0-C28650			75570	-0.10	1097	11030	60	-101	10.2	45	-2.3	6	1.9	25970	11.1	25460	47	0.5	
08-37.5192-104.7369-2-15-			0-C28651			70800	-0.08	772	8593	109	-88	12.6	58	-2.1	8	2.1	34650	18.6	18770	63	0.6	
08-37.5853-104.7528-2-15-			0-C28652			68170	-0.07	857	14100	91	-86	10.0	31	2.4	6	2.1	27340	17.1	20910	37	0.6	
08-37.5897-104.7956-2-15-			0-C28653			70400	-0.10	997	15570	104	-86	12.5	42	3.2	8	2.6	35200	19.6	25790	59	0.8	
08-37.5956-104.7361-2-15-			0-C28654			81960	-0.11	909	14890	57	-106	11.5	31	3.3	6	1.6	23880	6.8	20750	35	0.3	
08-37.5714-104.8214-2-15-			0-C28655			67940	-0.08	786	14840	101	-92	10.2	41	-2.1	9	2.5	38540	22.0	22930	53	0.8	
08-37.5303-104.8425-2-15-			0-C28657			62440	-0.08	963	14170	158	-96	10.5	69	-1.9	10	2.9	45900	35.8	23960	68	1.3	
08-37.6219-104.8525-2-15-			0-C28660			70860	-0.10	769	12150	93	-85	13.4	47	-2.5	6	2.4	36400	14.7	22400	52	0.6	
08-37.6503-104.7919-2-15-			0-C28661			62550	-0.08	1060	17300	62	-107	7.6	39	-2.0	6	2.0	29570	13.7	27430	41	0.5	
08-37.4722-104.7381-2-15-			0-C28662			62400	-0.07	990	8559	68	-87	9.4	37	-1.9	6	2.0	23640	16.2	24450	40	0.6	
08-37.4725-104.7325-2-99-			0-C28663			71760	-0.08	1015	8631	94	-85	10.4	41	3.0	6	2.0	26630	11.8	24900	44	0.6	
08-37.4836-104.7164-2-15-			0-C28664			64760	-0.09	867	6593	107	-73	11.5	66	-2.4	8	2.6	33870	22.9	21390	65	1.0	
08-37.4656-104.7067-2-15-			0-C28665			76680	-0.10	861	9885	70	-80	10.9	40	-2.4	7	2.0	27650	9.8	20520	39	0.5	
08-37.4497-104.4372-2-15-			0-C28666			79190	-0.10	586	28150	62	-74	14.6	62	5.3	5	1.7	34010	4.7	22330	46	0.4	
08-37.4311-104.4267-2-15-			0-C28667			53130	-0.07	474	62320	56	-73	9.0	46	3.7	4	1.4	21940	5.7	17150	26	0.4	
08-37.4867-104.6408-2-15-			0-C28672			71170	-0.12	678	18710	66	-83	15.3	55	8.0	5	1.8	38140	5.5	17110	36	0.3	
08-37.4669-104.6886-2-15-			0-C28673			67890	-0.08	1444	6804	69	-85	9.2	44	-2.1	7	2.2	30320	22.2	20680	44	0.6	
08-37.3992-104.6447-2-12-			0-C28674			79880	-0.09	635	12890	76	-81	13.8	47	4.7	6	1.7	27500	8.3	22440	42	0.4	
08-37.3794-104.6314-2-15-			0-C28675			71140	-0.08	959	6862	98	-72	11.5	50	3.0	7	2.3	25290	12.9	26720	44	0.7	
08-37.4106-104.6742-2-15-			0-C28676			57610	-0.09	1053	14330	93	-82	10.4	66	-2.2	5	2.2	33100	13.2	22710	50	0.8	
08-37.4094-104.6969-2-15-			0-C28677			65730	-0.08	1036	6720	56	-90	7.7	39	-2.0	6	1.6	22380	11.8	26220	37	0.4	
08-37.4050-104.7100-2-11-			0-C28678			71840	-0.09	723	6446	96	-87	11.9	46	-2.3	8	2.3	31430	17.5	24760	52	0.8	
08-37.4067-104.7050-2-15-			0-C28679			68350	-0.07	826	4819	116	-76	12.1	48	2.7	8	2.1	24520	20.0	23590	45	0.8	
08-37.4011-104.6550-2-15-			0-C28680			72760	-0.10	821	10160	96	-70	12.1	45	4.1	6	2.4	35300	13.7	20090	51	0.7	
08-37.2658-105.7728-2-12-			0-C28681			78330	-0.09	776	27350	76	-112	15.0	51	2.7	5	2.1	42950	10.3	22680	30	0.4	
08-37.2547-105.8258-2-13-			0-C28683			56250	-0.13	506	85350	53	-101	16.3	29	5.9	3	1.4	39620	5.2	22230	33	0.2	
08-37.2736-105.5717-2-15-			0-C28684			70050	-0.10	774	21570	54	-96	13.2	27	-2.2	4	1.7	37100	8.6	24650	39	0.4	
08-37.2706-105.5717-2-15-			0-C28685			68310	-0.09	708	17600	69	-94	13.8	32	4.4	5	1.7	35970	8.7	23260	37	0.4	
08-37.2922-105.5808-2-15-			0-C28686			72170	-0.10	681	16260	92	-109	13.5	29	4.5	4	1.9	34420	9.2	21070	41	0.5	
08-37.3064-105.5867-2-97-			0-C28687			73720	-0.14	638	25530	105	-96	19.7	36	7.0	4	2.3	43610	8.2	22640	52	0.4	
08-37.3158-105.6097-2-15-			0-C28688			67460	-0.10	748	16060	64	-92	14.8	36	3.9	5	1.6	39420	11.9	23840	36	0.4	
08-37.3675-105.5558-2-97-			0-C28689			68680	-0.08	810	16080	50	-89	8.8	34	-1.6	4	1.6	26570	8.6	25710	30	0.4	
08-37.3144-105.5483-2-15-			0-C28690			70630	-0.09	669	14460	89	-108	14.6	43	2.7	4	2.0	36600	13.1	21640	35	0.5	
08-37.2878-105.5017-2-15-			0-C28691			69190	-0.12	548	14120	95	-99	15.2	44	4.3	5	2.5	41080	12.8	21760	50	0.6	
08-37.2764-105.5231-2-15-			0-C28692			69170	-0.10	693	13700	63	-95	13.6	32	3.7	6	1.8	33590	9.9	20560	42	0.4	
08-37.2556-105.5158-2-15-			0-C28693			69400	-0.09	762	17930	58	-87	13.8	48	3.4	5	1.9	43570	13.5	19120	40	0.4	
08-37.3703-105.7922-2-12-			0-C28701			81090	-0.10	725	16300	71	-100	16.3	22	-2.2	5	2.1	39720	9.0	19240	39	0.4	
08-37.2947-105.7847-2-13-			0-C28706			83190	-0.12	628	35250	57	-105	19.6	44	3.4	3	2.4	57310	6.4	17580	34	0.4	
08-37.2672-105.7964-2-15-			0-C28707			78280	-0.12	730	17940	45	-97	12.2	32	5.3	4	1.8	44360	6.4	23770	33	0.3	
08-37.2414-105.5647-2-15-			0-C28711			70590	-0.10	785	13460	81	-96	16.2	41	4.9	6	2.0	36210	9.4	19980	45	0.5	
08-37.2453-105.5317-2-15-			0-C28712			74390	-0.10	782	11630	108	-115	15.9	64	3.9	6	2.1	38640	13.1	26830	51	0.5	
08-37.2472-105.5314-2-15-			0-C28713			67590	-0.11	635	12170	87	-98	17.7	36	4.8	5	2.2	43070	14.7	25310	50	0.6	
08-37.2447-105.5133-2-15-			0-C28714			67410	-0.11	674	12470	68	-96	14.6	33	3.5	5	1.9	34810	11.9	23610	42	0.5	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)														U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)														
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn
08-37.7125-104.8361-2-15-			0-C28640			7442	335	18910	-34	-2	7.1	4.2	-268	-1	-1	8.5	4022	61	4.8	67	0.329
08-37.6875-104.8422-2-15-			0-C28642			9371	541	13700	-35	-2	8.0	4.9	-261	-1	-1	7.9	4749	77	5.1	-46	0.419
08-37.6756-104.8453-2-15-			0-C28643			12320	718	13220	57	-2	10.1	10.7	355	-1	-1	12.9	7004	98	4.8	103	0.295
08-37.6342-104.8597-2-11-			0-C28645			11920	688	13050	-53	-3	12.6	8.7	432	-2	-2	13.8	6317	103	4.2	-37	0.261
08-37.5631-104.7700-2-15-			0-C28646			9118	542	15760	-37	-2	8.5	6.4	-282	-1	-1	11.1	5889	81	6.8	61	0.389
08-37.5617-104.7669-2-15-			0-C28647			6881	765	13650	58	-2	9.0	9.2	-285	-1	1	17.5	5848	84	7.7	116	0.299
08-37.5408-104.7711-2-11-			0-C28648			9678	849	13070	-39	-2	11.5	12.3	-321	-2	-1	20.0	7035	93	8.2	88	0.236
08-37.5361-104.7736-2-15-			0-C28649			7958	920	14050	-42	-2	11.6	8.6	-301	-2	-1	12.8	6701	82	7.4	-52	0.303
08-37.5214-104.7836-2-99-			0-C28650			9249	611	14910	-40	-2	8.8	4.7	-329	-2	-1	9.6	4512	69	3.9	79	0.364
08-37.5192-104.7869-2-15-			0-C28651			9307	715	13350	60	-2	10.4	7.6	-287	-1	-1	14.0	5977	90	6.2	137	0.324
08-37.5853-104.7628-2-15-			0-C28652			11960	516	17500	-30	-2	7.9	7.1	350	-1	-1	10.7	5321	77	5.1	91	0.323
08-37.5897-104.7956-2-15-			0-C28653			12580	602	15730	81	-2	11.4	7.8	-266	-2	-1	15.6	5872	86	6.8	-58	0.272
08-37.5956-104.7861-2-15-			0-C28654			14660	518	15280	-42	-3	8.6	3.7	-346	-2	-1	7.2	4457	82	2.4	-69	0.443
08-37.5714-104.8214-2-15-			0-C28655			10510	756	14630	-38	-2	10.1	6.9	-303	-2	-1	12.5	6510	102	6.2	129	0.417
08-37.5303-104.8425-2-15-			0-C28657			7859	882	16390	-36	-2	9.9	13.9	-317	-1	1	16.9	8197	125	10.0	80	0.364
08-37.6219-104.8525-2-15-			0-C28660			7689	560	13690	-47	-3	11.4	7.4	-262	-2	-2	10.7	5137	77	4.9	-62	0.362
08-37.6503-104.7919-2-15-			0-C28661			8382	632	19120	59	-2	7.2	4.4	-336	-1	-1	7.8	6173	69	3.8	52	0.403
08-37.4722-104.7381-2-15-			0-C28662			8275	583	14050	59	-2	7.6	5.1	-270	-2	-1	9.2	5187	71	5.2	61	0.438
08-37.4725-104.7325-2-99-			0-C28663			8852	560	13230	70	-2	9.3	7.1	-273	-1	-1	11.0	4655	73	4.8	81	0.322
08-37.4836-104.7164-2-15-			0-C28664			9207	543	11410	73	-2	11.4	9.7	-242	-2	-1	16.8	5841	79	5.5	102	0.270
08-37.4656-104.7067-2-15-			0-C28665			12670	523	8863	-39	-2	10.4	5.4	-293	-2	-1	8.6	4994	87	4.0	-112	0.465
08-37.4497-104.4372-2-15-			0-C28666			17150	595	6102	91	-2	12.3	5.2	-279	-2	-2	11.1	4147	142	-2.0	231	0.360
08-37.4311-104.4267-2-15-			0-C28667			18840	278	10660	-32	-2	6.9	4.2	515	-2	-1	8.6	2764	107	-1.9	42	0.341
08-37.4867-104.6408-2-15-			0-C28672			17200	871	8863	-57	-3	11.2	5.4	-341	-3	-1	12.4	3678	135	-3.1	112	0.294
08-37.4669-104.6686-2-15-			0-C28673			6601	458	13360	89	-2	9.0	5.2	-271	-1	-1	12.1	5393	78	5.1	64	0.368
08-37.3992-104.6447-2-12-			0-C28674			13190	420	9613	-45	-2	10.7	5.1	-266	-2	-1	11.4	4703	92	4.0	-58	0.368
08-37.3794-104.6814-2-15-			0-C28675			11240	460	10470	63	-2	10.0	8.0	-241	-1	-1	12.6	4796	68	4.7	-48	0.306
08-37.4106-104.6742-2-15-			0-C28676			8504	636	13750	-41	-2	9.3	6.4	-266	-2	-1	11.5	4607	61	3.6	60	0.289
08-37.4094-104.6969-2-15-			0-C28677			8921	437	14350	-40	-2	7.4	2.8	-275	-2	-1	6.2	4436	59	4.0	110	0.552
08-37.4050-104.7100-2-11-			0-C28678			7524	661	11740	88	-2	10.7	7.1	-297	-2	-1	14.7	5658	82	6.2	-53	0.344
08-37.4067-104.7050-2-15-			0-C28679			9494	521	12010	74	-2	9.4	8.9	-250	-1	-1	15.1	5121	75	6.3	-56	0.299
08-37.4011-104.6650-2-15-			0-C28680			12320	453	10020	-45	-2	12.0	7.3	-231	-2	-1	13.1	5154	87	3.5	-67	0.285
08-37.2658-105.7728-2-12-			0-C28681			19100	625	21510	-33	-2	9.9	6.5	553	-1	-1	8.8	5093	138	2.9	74	0.419
08-37.2547-105.8258-2-13-			0-C28683			36390	739	12030	-50	-3	9.5	3.6	953	-3	-1	6.9	2133	90	-2.8	-61	0.441
08-37.2736-105.9717-2-15-			0-C28684			14360	766	17620	81	-2	9.2	4.1	409	2	-1	9.3	4626	101	3.2	118	0.304
08-37.2706-105.5717-2-15-			0-C28685			13440	848	16360	-38	-2	9.1	4.6	409	-1	-1	10.1	4855	93	3.9	146	0.313
08-37.2922-105.5808-2-15-			0-C28686			18010	858	14960	65	-2	9.1	6.6	-370	-1	-1	9.8	4642	84	4.0	132	0.328
08-37.3064-105.5867-2-97-			0-C28687			19150	887	12290	78	-3	12.9	8.1	-341	-2	-2	13.6	3787	72	4.7	112	0.221
08-37.3158-105.6097-2-15-			0-C28688			11470	741	17960	59	-2	9.1	4.1	-285	-1	-1	9.8	5106	98	4.5	159	0.350
08-37.3675-105.5558-2-97-			0-C28689			9459	436	22440	71	-2	7.2	4.2	405	-1	-1	7.2	3783	74	3.2	63	0.331
08-37.3144-105.5483-2-15-			0-C28690			12670	775	18230	79	-2	8.8	6.8	-337	-1	-1	11.9	5011	91	4.9	52	0.289
08-37.2878-105.5017-2-15-			0-C28691			10970	917	14930	116	-3	11.3	6.6	-324	-1	-1	12.9	4799	83	4.8	113	0.283
08-37.2764-105.5231-2-15-			0-C28692			8775	856	16560	72	-3	8.9	4.7	-311	2	-1	9.4	4338	80	4.7	112	0.350
08-37.2556-105.5158-2-15-			0-C28693			12790	670	17820	47	-2	9.4	5.0	336	-1	-1	9.4	5539	109	3.8	117	0.370
08-37.3703-105.7922-2-12-			0-C28701			13190	751	12520	-38	-3	11.0	6.1	-355	-1	-1	8.7	6702	118	3.4	80	0.366
08-37.2947-105.7847-2-13-			0-C28706			15460	651	23000	-45	-3	14.9	3.5	518	-2	-1	4.5	5912	124	3.7	75	0.442
08-37.2672-105.7964-2-15-			0-C28707			19430	560	20980	-47	-3	12.2	4.0	521	-1	-1	10.2	5655	89	4.2	71	0.238
08-37.2414-105.5647-2-15-			0-C28711			14570	1024	14390	-40	-3	10.4	6.2	-335	-2	-1	11.4	4926	86	3.1	182	0.367
08-37.2453-105.5317-2-15-			0-C28712			14500	987	15960	108	-2	10.2	9.0	-403	-1	-1	13.7	6991	98	5.9	158	0.312
08-37.2472-105.5314-2-15-			0-C28713			9151	904	15860	62	-3	11.3	7.4	-308	-1	-1	12.6	4764	83	4.0	79	0.300
08-37.2447-105.5133-2-15-			0-C28714			10190	877	16220	-40	-3	8.8	5.3	-320	-1	-1	10.6	5250	87	4.0	-102	0.364

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																		U CONCENTRATION											
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	IR/LE/AIL	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (nCi/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
							DATE	HOUR																											
08-37.2439-105.5036-2-15-	0-C28715-03/08/76-14-	3-	-	-	-	12-4-	-4-6-	-	-	-	-	-	-	-	12-4-	-4-6-	-	-	-	-	-	-	-3-2-1-1-	-1-	-	-	-	-	-	-	-	-	3.88		
08-37.2122-105.6108-2-15-	0-C28716-03/08/76-14-	11-	-	-	-	8-4-	-4-6-	-	-	-	-	-	-	-	8-4-	-4-6-	-	-	-	-	-	-	-3-2-1-1-	-1-	-	-	-	-	-	-	-	-	4.54		
08-37.2019-105.5747-2-15-	0-C28717-03/08/76-15-	9-	-	-	-	11-4-	-4-6-	-	-	-	-	-	-	-	11-4-	-4-6-	-	-	-	-	-	-	-3-2-1-1-	-1-	-	-	-	-	-	-	-	-	5.00		
08-37.1781-105.5111-2-15-	0-C28719-03/08/76-16-	4-	-	-	-	14-4-	-4-6-	-	-	-	-	-	-	-	14-4-	-4-6-	-	-	-	-	-	-	-3-3-2-1-	-1-	-	-	-	-	-	-	-	-	3.52		
08-37.1264-105.5428-2-15-	0-C28720-03/08/76-16-	7-	-	-	-	11-4-	-4-6-	-	-	-	-	-	-	-	11-4-	-4-6-	-	-	-	-	-	-	-3-2-2-1-	-1-	-	-	-	-	-	-	-	-	3.20		
08-37.1261-105.5400-2-15-	0-C28721-03/08/76-16-	7-	-	-	-	8-4-	-4-6-	-	-	-	-	-	-	-	8-4-	-4-6-	-	-	-	-	-	-	-3-3-2-1-	-1-	-	-	-	-	-	-	-	-	3.24		
08-37.1344-105.5975-2-15-	0-C28723-03/08/76-17-	7-	-	-	-	12-4-	-4-6-	-	-	-	-	-	-	-	12-4-	-4-6-	-	-	-	-	-	-	-4-2-2-1-	-7-	-	-	-	-	-	-	-	-	3.16		
08-37.1944-105.8686-2-15-	0-C28724-03/09/76-13-	9-	-	-	-	12-3-8-	-4-6-	-1-	-	-	-	-	-	-	12-3-8-	-4-6-	-1-	-	-	-	-	-	-3-2-1-2-	-1-	-	-	-	-	-	-	-	-	2.19		
08-37.2328-105.7525-2-15-	0-C28725-03/09/76-15-	14-	-	-	-	10-3-8-	-4-6-	-1-	-	-	-	-	-	-	10-3-8-	-4-6-	-1-	-	-	-	-	-	-3-2-2-2-	-9-	-	-	-	-	-	-	-	-	2.17		
08-37.2419-105.7519-2-12-	0-C28726-03/09/76-15-	12-	-	-	-	5-3-8-6-6-1-2-	-	-	-	-	-	-	-	-	5-3-8-6-6-1-2-	-	-	-	-	-	-	-4-3-1-2-	-3-	-	-	-	-	-	-	-	-	-	3.42		
08-37.2433-105.8142-2-15-	0-C28727-03/09/76-16-	12-	-	-	-	13-3-6-5-1-	-1-	-	-	-	-	-	-	-	13-3-6-5-1-	-1-	-	-	-	-	-	-3-2-1-1-	-3-	-	-	-	-	-	-	-	-	-	2.51		
08-37.2381-105.8441-2-15-	0-C28728-03/09/76-16-	12-	-	-	-	5-3-8-3-6-	-1-	-	-	-	-	-	-	-	5-3-8-3-6-	-1-	-	-	-	-	-	-3-2-2-1-	-7-	-	-	-	-	-	-	-	-	-	2.08		
08-37.2131-105.8597-2-15-	0-C28729-03/09/76-16-	10-	-	-	-	10-3-9-3-6-	-1-	-	-	-	-	-	-	-	10-3-9-3-6-	-1-	-	-	-	-	-	-2-3-2-2-1-	-1-	-	-	-	-	-	-	-	-	-	1.86		
08-37.1714-105.8639-2-15-	0-C28730-03/09/76-17-	9-	-	-	-	7-4-	-4-6-	-1-	-	-	-	-	-	-	7-4-	-4-6-	-1-	-	-	-	-	-	-3-2-2-1-	-9-	-	-	-	-	-	-	-	-	2.23		
08-37.1708-105.8653-2-15-	0-C28731-03/09/76-17-																																		

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.2439-105.5036-2-15-						0-C28715	-5	-5	-5	25	-20	-15	11	-10	-15	3	27	
08-37.2122-105.6108-2-15-						0-C28716	-5	-5	-5	36	-20	-15	18	-10	21	3	24	
08-37.2019-105.5747-2-15-						0-C28717	-5	-5	-5	37	-20	-15	10	-10	-15	4	39	
08-37.1781-105.5111-2-15-						0-C28719	-5	-5	-5	28	-20	-15	18	-10	-15	3	32	
08-37.1264-105.5428-2-15-						0-C28720	-5	-5	-5	35	-20	-15	5	-10	-15	3	41	
08-37.1261-105.5400-2-15-						0-C28721	-5	-5	-5	34	-20	-15	12	-10	-15	3	26	
08-37.1344-105.5975-2-15-						0-C28723	-5	-5	-5	30	-20	-15	18	-10	-15	3	32	
08-37.1944-105.8686-2-15-						0-C28724	-5	-5	-5	19	-20	-15	11	-10	-15	2	32	
08-37.2328-105.7525-2-15-						0-C28725	9	-5	-5	91	-20	132	-5	30	35	-1	8	
08-37.2419-105.7519-2-12-						0-C28726	-5	-5	-5	37	-20	18	-5	-10	-15	3	43	
08-37.2433-105.8142-2-15-						0-C28727	-5	-5	-5	43	-20	-15	11	-10	-15	3	37	
08-37.2381-105.8481-2-15-						0-C28728	-5	-5	-5	26	-20	19	-5	-10	-15	1	25	
08-37.2131-105.8597-2-15-						0-C28729	7	-5	-5	45	34	30	-5	14	-15	2	21	
08-37.1714-105.8639-2-15-						0-C28730	-5	-5	-5	39	-20	21	-5	-10	-15	3	35	
08-37.1708-105.8653-2-15-						0-C28731	-5	-5	-5	44	21	-15	5	-10	-15	3	35	
08-37.1750-105.8394-2-15-						0-C28732	-5	-5	-5	27	-20	16	-5	-10	-15	3	39	
08-37.1589-105.8092-2-11-						0-C28733	-5	5	-5	45	-20	19	7	-10	-15	2	28	
08-37.1647-105.7661-2-15-						0-C28734	-5	-5	-5	48	-20	29	-5	-10	-15	2	26	
08-37.1658-105.7661-2-15-						0-C28735	-5	-5	-5	25	-20	-15	-5	-10	-15	2	22	
08-37.1217-105.3231-2-15-						0-C28736	-5	-5	-5	25	-20	-15	-5	-10	-15	3	18	
08-37.1192-105.3186-2-12-						0-C28737	-5	-5	-5	12	-20	15	6	-10	21	3	13	
08-37.1186-105.3186-2-12-						0-C28738	-5	-5	-5	24	-20	26	8	-10	-15	4	37	
08-37.0847-105.3167-2-12-						0-C28739	-5	-5	-5	23	-20	-15	14	-10	-15	4	36	
08-37.0833-105.3181-2-12-						0-C28740	-5	-5	-5	31	-20	-15	7	-10	-15	3	37	
08-37.0386-105.9292-2-15-						0-C28742	-5	-5	-5	43	-20	20	14	-10	-15	3	49	
08-37.0378-105.9286-2-15-						0-C28743	-5	-5	-5	52	-20	-15	12	-10	-15	3	44	
08-37.0183-105.8806-2-97-						0-C28744	-5	-5	-5	45	-20	44	8	-10	-15	3	42	
08-37.0300-105.8922-2-15-						0-C28745	-5	-5	-5	40	-20	52	5	11	-15	2	30	
08-37.1119-105.8931-2-15-						0-C28748	-5	-5	-5	27	-20	32	-5	-10	-15	2	26	
08-37.1025-105.8842-2-15-						0-C28749	-5	-5	-5	47	-20	37	11	-10	-15	2	45	
08-37.0286-105.9764-2-97-						0-C28750	-5	-5	-5	39	-20	23	10	-10	-15	3	25	
08-37.0986-105.6239-2-15-						0-C28751	-5	-5	-5	26	-20	-15	10	-10	-15	3	41	
08-37.0972-105.6125-2-15-						0-C28752	-5	-5	-5	19	-20	20	-5	-10	-15	3	35	
08-37.0997-105.5917-2-15-						0-C28754	-5	-5	-5	33	-20	-15	12	-10	-15	4	28	
08-37.0969-105.5736-2-15-						0-C28755	-5	-5	-5	27	-20	-15	8	-10	-15	4	25	
08-37.0992-105.5483-2-12-						0-C28756	-5	-5	-5	33	-20	-15	8	-10	-15	3	43	
08-37.1236-105.5194-2-15-						0-C28757	-5	-5	-5	23	-20	-15	8	-10	-15	4	26	
08-37.1006-105.4972-2-15-						0-C28758	-5	-5	-5	45	-20	-15	15	-10	-15	3	38	
08-37.0797-105.5375-2-15-						0-C28759	-5	-5	-5	27	-20	-15	17	-10	-15	3	41	
08-37.0753-105.5367-2-15-						0-C28760	-5	-5	-5	28	-20	15	16	-10	-15	4	50	
08-37.0689-105.5431-2-15-						0-C28761	-5	-5	-5	38	-20	-15	28	-10	-15	3	43	
08-37.0644-105.5633-2-15-						0-C28762	-5	-5	-5	19	-20	-15	15	-10	-15	3	39	
08-37.0644-105.6022-2-15-						0-C28763	-5	-5	-5	27	-20	-15	12	-10	-15	3	33	
08-37.0033-105.6006-2-15-						0-C28766	-5	-5	-5	30	-20	-15	15	-10	-15	3	34	
08-37.0636-105.4975-2-15-						0-C28768	-5	-5	-5	26	-20	-15	11	-10	-15	3	46	
08-37.0675-105.4967-2-15-						0-C28769	-5	-5	-5	27	-20	23	12	-10	-15	3	46	
08-37.0272-105.3978-2-15-						0-C28770	-5	-5	-5	24	25	-15	19	-10	-15	5	49	
08-37.0008-105.4153-2-15-						0-C28771	-5	-5	-5	51	-20	-15	12	-10	-15	6	50	
08-37.0006-105.4364-2-15-						0-C28772	-5	-5	-5	34	-20	27	11	-10	-15	4	49	
08-37.0156-105.4308-2-15-						0-C28773	-5	-5	-5	38	-20	-15	16	-10	-15	4	43	
08-37.0008-105.4606-2-15-						0-C28774	-5	-5	-5	29	-20	17	16	-10	-15	3	46	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	As	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
08-37.2439-105.5036-2-15-			0-C28715			66780	-0.09	677	12690	69	-89	12.5	34	3.3	6	1.9	32720	12.0	23350	46	0.4		
08-37.2122-105.6108-2-15-			0-C28716			66690	-0.08	622	11120	89	-111	12.2	42	4.1	5	1.8	36500	15.7	24920	37	0.6		
08-37.2019-105.5747-2-15-			0-C28717			67790	-0.10	613	16070	92	-91	11.2	34	-2.2	6	2.3	33970	16.1	23150	53	0.7		
08-37.1781-105.5111-2-15-			0-C28719			71780	-0.11	854	15740	58	-92	13.8	44	5.1	5	1.6	35690	10.1	21200	43	0.4		
08-37.1264-105.5428-2-15-			0-C28720			71450	-0.09	657	15030	71	-91	15.1	36	4.9	5	1.8	34110	10.7	25130	43	0.5		
08-37.1261-105.5400-2-15-			0-C28721			74640	-0.08	762	15760	88	-108	13.4	40	3.6	4	2.0	32130	11.7	25510	36	0.4		
08-37.1344-105.5975-2-15-			0-C28723			69000	-0.10	736	14840	80	-92	15.3	36	3.4	4	2.0	38180	12.6	23130	45	0.6		
08-37.1944-105.8686-2-15-			0-C28724			72430	-0.11	723	33440	54	-105	19.8	43	3.7	3	1.6	50170	7.2	18660	31	0.4		
08-37.2328-105.7525-2-15-			0-C28725			25960	-0.12	-210	14170	31	-153	98.6	207	-2.6	-1	1.3	322600	16.7	-6612	27	0.3		
08-37.2419-105.7519-2-12-			0-C28726			73150	-0.10	622	51830	72	-123	16.3	38	3.3	4	2.0	36780	8.1	19260	42	0.4		
08-37.2433-105.8142-2-15-			0-C28727			71820	-0.12	529	35910	86	-92	19.8	45	5.3	4	2.2	48820	9.3	21700	49	0.4		
08-37.2381-105.8481-2-15-			0-C28728			61230	-0.12	633	27500	47	-106	36.8	91	-2.5	3	1.8	105500	8.1	16990	27	0.3		
08-37.2131-105.8597-2-15-			0-C28729			48600	-0.11	374	25480	49	-124	65.8	148	-2.5	3	1.6	194600	10.8	-5511	28	0.3		
08-37.1714-105.8639-2-15-			0-C28730			74380	-0.09	734	39270	90	-112	21.2	67	3.6	4	2.0	54440	10.0	23460	36	0.3		
08-37.1708-105.8653-2-15-			0-C28731			69510	-0.12	559	36510	67	-97	22.8	63	4.7	4	2.5	55480	8.2	22220	41	0.4		
08-37.1750-105.8394-2-15-			0-C28732			73860	-0.12	799	30950	52	-100	16.7	41	3.8	4	1.6	38140	5.2	19700	34	0.3		
08-37.1589-105.8092-2-11-			0-C28733			59740	-0.11	561	25160	60	-118	41.7	93	4.9	4	2.1	109200	10.5	16600	47	0.3		
08-37.1647-105.7661-2-15-			0-C28734			52340	-0.10	631	24740	71	-128	45.4	138	2.8	3	2.1	136700	13.2	18910	38	0.4		
08-37.1658-105.7661-2-15-			0-C28735			66210	-0.12	503	29830	66	-106	37.9	99	-2.6	3	2.3	105400	9.4	17300	39	0.4		
08-37.1217-105.3231-2-15-			0-C28736			44410	-0.08	640	10630	49	-67	8.0	33	-1.7	5	1.4	20660	11.8	20040	34	0.4		
08-37.1192-105.3186-2-12-			0-C28737			48090	-0.08	584	9825	108	-75	8.4	41	-1.7	14	3.0	36230	58.8	22550	63	1.8		
08-37.1186-105.3186-2-12-			0-C28738			70920	-0.10	660	11300	112	-112	11.2	61	3.0	10	2.2	29680	14.8	21500	53	0.8		
08-37.0847-105.3167-2-12-			0-C28739			64250	-0.12	549	13590	96	-108	13.3	55	2.7	9	2.3	39140	25.3	23370	63	1.4		
08-37.0833-105.3181-2-12-			0-C28740			60090	-0.11	581	14960	58	-104	10.1	42	3.5	8	1.7	28750	18.0	21560	42	0.9		
08-37.0386-105.9292-2-15-			0-C28742			75770	-0.11	665	15470	68	-91	21.0	53	5.5	6	1.7	41690	6.7	21110	39	0.4		
08-37.0378-105.9286-2-15-			0-C28743			80420	-0.13	609	19430	101	-112	16.8	54	6.0	5	1.9	36740	6.6	23500	40	0.5		
08-37.0183-105.8806-2-97-			0-C28744			70520	-0.12	486	23260	76	-80	28.2	86	5.7	4	2.4	52090	9.0	17450	41	0.5		
08-37.0300-105.8922-2-15-			0-C28745			58460	-0.12	622	26600	65	-97	39.1	125	3.2	4	1.8	101900	11.2	16730	37	0.3		
08-37.1119-105.8931-2-15-			0-C28748			64620	-0.10	779	45710	50	-92	23.1	78	3.1	4	1.7	60510	9.6	15320	38	0.3		
08-37.1025-105.8842-2-15-			0-C28749			76370	-0.11	724	18750	85	-109	19.6	84	5.9	5	2.3	45240	6.9	19290	34	0.5		
08-37.0286-105.9764-2-97-			0-C28750			74830	-0.14	567	22490	85	-78	20.6	58	6.6	5	2.0	42720	5.1	21850	46	0.5		
08-37.0986-105.6239-2-15-			0-C28751			69980	-0.11	710	10450	68	-94	17.1	44	5.3	5	1.8	33210	8.0	21390	46	0.5		
08-37.0972-105.6125-2-15-			0-C28752			67250	-0.09	758	18120	68	-86	11.9	31	3.7	5	1.7	32340	11.4	22740	36	0.5		
08-37.0997-105.5917-2-15-			0-C28754			77850	-0.10	700	19090	94	-103	14.1	41	4.4	6	2.1	32630	8.2	23080	39	0.5		
08-37.0969-105.5736-2-15-			0-C28755			70350	-0.11	617	17580	73	-90	13.2	44	4.5	5	2.2	34900	13.1	24530	45	0.6		
08-37.0992-105.5483-2-12-			0-C28756			68760	-0.12	735	17160	71	-100	15.9	40	3.4	6	1.9	45860	13.5	22090	42	0.6		
08-37.1236-105.5194-2-15-			0-C28757			71160	-0.08	830	13460	45	-88	10.1	30	2.5	4	1.6	25840	9.1	23970	30	0.4		
08-37.1006-105.4972-2-15-			0-C28758			71030	-0.08	830	16520	71	-105	11.0	49	3.5	5	1.7	28170	12.5	27010	39	0.5		
08-37.0797-105.5375-2-15-			0-C28759			67200	-0.12	585	11220	81	-93	16.1	45	5.1	5	2.0	34450	11.2	24840	46	0.6		
08-37.0753-105.5367-2-15-			0-C28760			69400	-0.13	591	12030	67	-100	13.3	30	4.4	6	1.8	29650	8.1	23110	41	0.5		
08-37.0689-105.5431-2-15-			0-C28761			68850	-0.10	665	12940	82	-97	13.5	53	5.7	8	1.8	30690	11.2	24050	46	0.7		
08-37.0644-105.5633-2-15-			0-C28762			70050	-0.08	632	18370	85	-104	10.2	44	4.2	6	1.9	24740	9.1	23250	37	0.6		
08-37.0644-105.6022-2-15-			0-C28763			68240	-0.11	603	11160	80	-98	12.0	38	4.5	5	1.8	31910	12.9	24160	49	0.6		
08-37.0033-105.6006-2-15-			0-C28766			65730	-0.11	675	10370	70	-92	10.9	45	4.2	7	2.2	32470	10.6	27780	44	0.7		
08-37.0636-105.4975-2-15-			0-C28768			68730	-0.10	848	16790	57	-94	14.7	51	4.2	5	1.6	29530	10.9	23790	38	0.4		
08-37.0675-105.4967-2-15-			0-C28769			75970	-0.11	732	17560	96	-112	15.8	70	4.5	6	2.4	34300	10.1	21060	49	0.6		
08-37.0272-105.3978-2-15-			0-C28770			64730	-0.12	656	9894	140	-87	12.2	56	6.1	15	2.8	37420	21.8	30090	79	1.8		
08-37.0008-105.4153-2-15-			0-C28771			73610	-0.13	525	14390	79	-87	13.2	75	7.5	21	2.3	34520	11.1	23900	90	1.5		
08-37.0006-105.4364-2-15-			0-C28772			72270	-0.10	621	13330	83	-90	13.7	54	4.9	9	1.9	30720	13.1	19390	52	0.8		
08-37.0156-105.4308-2-15-			0-C28773			67710	-0.10	621	17500	100	-105	11.7	59	4.4	10	2.1	23010	10.4	20450	55	0.9		
08-37.0008-105.4606-2-15-			0-C28774			68450	-0.13	610	12670	96	-96	20.3	66	6.5	5	2.2	39630	12.7	21790	58	0.6		

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
08-37.2439-105.5036-2-15-	0-028715	11070	712	17750	82	-2	8.4	5.2	-274	-1	-1	10.3	4348	92	4.6	92	0.377					
08-37.2122-105.6108-2-15-	0-028716	12590	1049	16070	80	-2	8.0	6.6	-376	-1	-1	12.0	4809	88	4.5	78	0.378					
08-37.2019-105.5747-2-15-	0-028717	12090	567	17580	64	-3	10.5	8.2	-269	2	-1	13.0	3053	64	6.4	103	0.385					
08-37.1781-105.5111-2-15-	0-028719	11800	847	15070	96	-3	9.8	4.1	-322	-2	-1	9.2	5006	83	4.2	-80	0.383					
08-37.1264-105.5428-2-15-	0-028720	14260	831	16420	74	-2	9.5	5.1	-296	-1	1	11.5	4692	78	3.6	134	0.278					
08-37.1261-105.5400-2-15-	0-028721	15600	766	18200	-30	-2	8.6	6.6	-339	-1	-1	11.1	3830	89	4.4	63	0.292					
08-37.1344-105.5975-2-15-	0-028723	9423	732	17250	-41	-3	9.9	6.6	-286	-1	-1	10.2	4000	84	4.5	91	0.310					
08-37.1944-105.8686-2-15-	0-028724	21070	945	19360	-43	-3	11.2	4.2	599	-2	-1	7.7	6188	130	2.7	-83	0.284					
08-37.2328-105.7525-2-15-	0-028725	19050	2342	6237	-56	-3	21.3	3.5	-482	-2	-1	7.1	22210	795	2.2	366	0.306					
08-37.2419-105.7519-2-12-	0-028726	21580	885	16700	-38	-3	9.5	6.1	-412	-2	-1	8.9	4863	95	3.4	-46	0.384					
08-37.2433-105.8142-2-15-	0-028727	16810	710	15000	88	-3	12.3	6.8	-289	-1	-1	10.3	5506	99	5.3	137	0.244					
08-37.2381-105.8481-2-15-	0-028728	18700	1263	16430	-48	-3	14.4	4.1	-360	-1	-1	5.9	12270	330	-2.2	280	0.353					
08-37.2131-105.8597-2-15-	0-028729	21270	1908	13360	-50	-3	19.5	4.2	-416	-1	-1	5.9	16950	550	2.8	238	0.315					
08-37.1714-105.8639-2-15-	0-028730	19140	881	16840	74	-2	11.4	6.7	650	-1	-1	9.5	6541	168	5.2	111	0.235					
08-37.1708-105.8653-2-15-	0-028731	21000	815	15410	-47	-3	13.1	6.2	-313	-1	-1	9.8	5174	117	3.6	115	0.240					
08-37.1750-105.8394-2-15-	0-028732	17820	819	17340	65	-3	10.4	3.7	566	-1	-1	7.5	5135	97	-2.2	175	0.292					
08-37.1589-105.8092-2-11-	0-028733	18960	1687	14260	-49	-3	13.0	5.4	-421	-1	-2	10.1	11620	332	-2.2	158	0.344					
08-37.1647-105.7661-2-15-	0-028734	20740	1560	14660	-43	-3	15.4	6.6	-446	2	-1	9.5	14700	424	3.9	-69	0.294					
08-37.1658-105.7661-2-15-	0-028735	18090	1056	18680	-51	-3	16.9	4.9	649	-1	-1	8.2	8502	258	-2.2	221	0.261					
08-37.1217-105.3231-2-15-	0-028736	9485	381	12130	49	-2	5.9	3.8	-207	-1	-1	7.2	3505	61	4.2	41	0.408					
08-37.1192-105.3186-2-12-	0-028737	5310	491	15330	45	-2	7.2	8.1	-223	4	2	16.0	5276	82	13.4	83	0.703					
08-37.1186-105.3186-2-12-	0-028738	10540	683	16430	65	-2	8.5	11.5	-372	-1	-1	17.0	4663	67	7.2	-41	0.417					
08-37.0847-105.3167-2-12-	0-028739	9561	863	19200	112	-3	9.5	10.8	-338	5	-2	18.1	4112	56	10.9	60	0.721					
08-37.0833-105.3181-2-12-	0-028740	12100	862	19180	-40	-3	8.8	4.6	-333	-1	-1	10.3	4468	72	6.6	60	0.997					
08-37.0386-105.9292-2-15-	0-028742	22250	902	11180	-46	-3	11.8	5.1	605	-1	-1	10.7	5332	107	3.4	-138	0.257					
08-37.0378-105.9286-2-15-	0-028743	23710	975	9479	-49	-3	12.0	7.7	-443	-2	-1	12.6	4479	78	3.9	-90	0.213					
08-37.0183-105.8806-2-97-	0-028744	27860	774	10470	-46	-3	16.0	5.6	-282	-2	-1	11.1	4577	91	4.7	-52	0.207					
08-37.0300-105.8922-2-15-	0-028745	26240	1202	14030	-47	-3	14.4	4.2	549	-1	-1	7.7	11740	335	3.3	200	0.335					
08-37.1119-105.8931-2-15-	0-028748	20900	881	15200	-38	-2	11.7	4.6	439	-2	-1	8.2	8164	180	3.3	109	0.289					
08-37.1025-105.8842-2-15-	0-028749	23870	898	13520	-41	-3	12.4	7.2	-385	-1	-1	12.0	6754	118	3.2	120	0.239					
08-37.0286-105.9764-2-97-	0-028750	21010	770	7163	87	-3	14.3	6.9	-307	-2	-2	13.0	4620	80	3.8	171	0.200					
08-37.0986-105.6239-2-15-	0-028751	14400	1140	12060	87	-3	10.7	5.6	-355	-1	-1	12.4	4766	62	4.4	-69	0.281					
08-37.0972-105.6125-2-15-	0-028752	11230	554	17910	64	-2	8.7	4.7	-253	-1	-1	8.6	4457	76	3.6	201	0.342					
08-37.0997-105.5917-2-15-	0-028754	16800	742	13480	73	-2	9.9	8.4	-350	-1	-1	12.9	3986	72	3.9	-34	0.268					
08-37.0969-105.5736-2-15-	0-028755	14330	615	15910	79	-3	10.5	8.0	-274	-1	-1	12.2	4416	72	4.1	68	0.317					
08-37.0992-105.5483-2-12-	0-028756	14030	830	17050	-43	-3	10.0	5.4	-330	-1	-1	11.8	4912	118	4.9	104	0.434					
08-37.1236-105.5194-2-15-	0-028757	10800	441	21110	84	-2	7.0	3.8	-244	-1	-1	9.4	3683	62	2.2	95	0.306					
08-37.1006-105.4972-2-15-	0-028758	11690	612	18290	67	-2	8.0	5.8	-318	-1	-1	13.0	4345	70	4.7	-47	0.240					
08-37.0797-105.5375-2-15-	0-028759	13640	813	13750	104	-3	10.9	6.6	-313	2	-1	13.6	3485	54	5.5	112	0.255					
08-37.0753-105.5367-2-15-	0-028760	12590	988	12820	-46	-3	9.6	3.1	-378	-2	-1	10.5	4776	77	3.3	-74	0.375					
08-37.0689-105.5431-2-15-	0-028761	14340	834	15770	66	-3	10.1	5.4	-322	-1	-1	14.1	5919	71	5.2	68	0.466					
08-37.0644-105.5633-2-15-	0-028762	13270	597	16930	-29	-2	7.9	6.5	-322	-1	-1	10.7	3476	55	4.9	60	0.378					
08-37.0644-105.6022-2-15-	0-028763	10580	782	15430	81	-3	9.9	7.2	-311	-1	-1	13.1	4879	66	4.8	48	0.327					
08-37.0033-105.6006-2-15-	0-028766	12450	750	15530	85	-3	10.4	5.6	-303	-1	-1	12.2	5162	71	6.1	104	0.482					
08-37.0636-105.4975-2-15-	0-028768	13710	733	14970	54	-2	8.9	4.4	-297	-2	-1	10.2	5302	76	3.2	131	0.327					
08-37.0675-105.4967-2-15-	0-028769	15570	890	14180	78	-3	11.0	6.8	-397	-1	-1	13.8	5093	85	3.5	-55	0.228					
08-37.0272-105.3978-2-15-	0-028770	9477	564	13940	155	-3	10.1	12.7	-276	3	3	15.7	4301	57	13.7	116	0.655					
08-37.0008-105.4153-2-15-	0-028771	13870	632	12610	89	-3	12.6	14.3	-297	-2	3	14.8	5359	82	11.3	188	1.799					
08-37.0006-105.4364-2-15-	0-028772	10450	698	15000	110	-3	10.4	6.7	-294	-1	-1	13.5	5139	74	6.2	-80	0.407					
08-37.0156-105.4308-2-15-	0-028773	16230	624	13800	100	-3	8.7	11.1	-360	-2	1	12.7	5786	58	7.5	89	0.413					
08-37.0008-105.4606-2-15-	0-028774	10420	982	13230	99	-3	12.8	6.9	-336	-1	-1	13.5	4582	82	5.5	145	0.263					

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE								ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)								Concentrations in weight ppm		
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li
08-37.2608-105.7297-2-15-			0-C28775				-5	-5	-5	27	-20	-15	10	-10	-15	2	33
08-37.2769-105.7117-2-15-			0-C28776				-5	-5	-5	16	-20	-15	-5	-10	-15	2	39
08-37.3633-105.7208-2-13-			0-C28781				-5	-5	-5	12	-20	-15	5	-10	-15	2	25
08-37.2900-105.6994-2-15-			0-C28782				-5	-5	-5	21	-20	-15	-5	-10	-15	3	50
08-37.2767-105.6472-2-15-			0-C28783				-5	-5	-5	36	-20	16	10	-10	-15	2	40
08-37.2628-105.6700-2-15-			0-C28784				-5	-5	-5	19	-20	-15	-5	-10	-15	2	30
08-37.3736-105.6356-2-12-			0-C28787				-5	-5	-5	23	-20	-15	7	-10	-15	2	30
08-37.1997-105.7381-2-15-			0-C28788				-5	-5	5	52	21	-15	-5	-10	-15	1	22
08-37.1742-105.7342-2-15-			0-C28789				5	-5	5	43	24	43	-5	19	-15	-1	23
08-37.2083-105.6472-2-15-			0-C28790				-5	-5	-5	31	-20	-15	12	-10	-15	3	39
08-37.2167-105.6556-2-15-			0-C28791				-5	-5	-5	28	-20	17	8	-10	-15	3	38
08-37.2361-105.6286-2-15-			0-C28792				-5	-5	-5	32	-20	23	12	-10	-15	3	45
08-37.1997-105.6775-2-15-			0-C28793				-5	-5	-5	31	-20	-15	8	-10	-15	3	42
08-37.1861-105.6719-2-15-			0-C28794				-5	-5	-5	32	-20	-15	6	-10	-15	3	29
08-37.1836-105.6808-2-15-			0-C28795				-5	-5	-5	38	-20	-15	12	-10	-15	3	46
08-37.1794-105.7147-2-15-			0-C28796				-5	-5	-5	25	-20	-15	7	-10	-15	3	32
08-37.1792-105.7269-2-15-			0-C28797				-5	-5	-5	26	-20	-15	11	-10	-15	3	38
08-37.1831-105.7322-2-15-			0-C28798				-5	-5	-5	32	-20	-15	10	-10	20	2	36
08-37.2400-105.7369-2-15-			0-C28799				-5	-5	-5	26	-20	-15	-5	-10	-15	2	25
08-37.1417-105.7475-2-15-			0-C28800				-5	-5	-5	38	-20	26	6	-10	-15	2	33
08-37.1372-105.7492-2-15-			0-C28801				-5	-5	-5	34	-20	-15	-5	-10	-15	2	35
08-37.1433-105.7472-2-15-			0-C28802				-5	-5	-5	47	-20	36	6	-10	-15	3	33
08-37.1050-105.7456-2-15-			0-C28803				-5	-5	-5	25	-20	46	-5	-10	-15	2	28
08-37.0275-105.7483-2-15-			0-C28805				-5	-5	-5	31	-20	-15	24	-10	-15	2	46
08-37.0283-105.7267-2-97-			0-C28806				-5	-5	-5	53	-20	30	18	16	-15	3	51
08-37.0031-105.7131-2-15-			0-C28807				-5	-5	-5	15	-20	-15	11	-10	-15	2	44
08-37.0264-105.6972-2-15-			0-C28808				-5	-5	-5	45	-20	-15	21	-10	-15	3	35
08-37.0297-105.6750-2-15-			0-C28809				-5	-5	-5	23	-20	-15	8	-10	-15	3	46
08-37.0006-105.6539-2-15-			0-C28810				-5	-5	-5	33	-20	20	11	-10	-15	3	34
08-37.0447-105.6547-2-15-			0-C28811				-5	-5	-5	36	-20	-15	16	-10	-15	3	34
08-37.0500-105.6283-2-15-			0-C28812				-5	-5	-5	26	-20	20	11	-10	-15	3	41
08-37.0692-105.6542-2-15-			0-C28813				-5	5	-5	15	-20	-15	8	-10	-15	3	44
08-37.0711-105.6514-2-15-			0-C28814				-5	-5	-5	29	-20	-15	9	-10	-15	3	39
08-37.0792-105.6764-2-15-			0-C28815				-5	-5	-5	28	-20	22	12	-10	-15	2	37
08-37.0781-105.6831-2-15-			0-C28816				-5	-5	-5	22	-20	-15	16	-10	-15	3	37
08-37.1092-105.7178-2-97-			0-C28817				-5	-5	-5	27	-20	-15	12	-10	-15	2	33
08-37.1011-105.7394-2-15-			0-C28818				-5	-5	-5	26	-20	-15	7	-10	-15	2	37
08-37.1181-105.6439-2-15-			0-C28819				-5	-5	-5	28	-20	-15	16	-10	-15	3	43
08-37.1394-105.6697-2-97-			0-C28820				-5	-5	-5	36	-20	-15	-5	-10	-15	3	39
08-37.1419-105.6303-2-15-			0-C28821				-5	-5	-5	28	-20	-15	6	-10	-15	2	40
08-37.1564-105.6269-2-15-			0-C28822				-5	-5	-5	25	-20	17	-5	-10	-15	3	39
08-37.1456-105.3661-2-15-			0-C28823				-5	-5	-5	22	-20	-15	7	-10	-15	2	75
08-37.1267-105.3589-2-15-			0-C28824				-5	-5	-5	18	-20	-15	8	-10	-15	3	30
08-37.1806-105.3328-2-15-			0-C28825				-5	-5	-5	18	-20	-15	10	-10	-15	3	27
08-37.1808-105.3211-2-12-			0-C28826				-5	-5	-5	29	-20	-15	11	-10	-15	3	50
08-37.1836-105.3131-2-12-			0-C28827				-5	-5	-5	28	21	-15	10	-10	-15	3	44
08-37.2122-105.2786-2-12-			0-C28828				-5	-5	-5	28	-20	20	8	-10	-15	3	29
08-37.2250-105.2775-2-12-			0-C28829				-5	-5	-5	40	-20	-15	8	-10	-15	4	48
08-37.4608-105.0319-2-15-			0-C28831				-5	-5	-5	10	-20	-15	-5	-10	-15	3	62
08-37.4581-105.0306-2-12-			0-C28832				-5	-5	-5	39	-20	54	-5	-10	-15	3	38
08-37.4200-105.0519-2-12-			0-C28833				-5	-5	-5	30	-20	-15	14	-10	-15	3	35

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	U.S. SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
08-37.2608-105.7297-2-15-			0-C28775			71620	-0.11	733	26420	57	-106	23.8	56	-2.2	4	1.9	61960	8.8	22440	35	0.4		
08-37.2769-105.7117-2-15-			0-C28776			70400	-0.09	673	24680	48	-100	21.6	46	2.3	4	2.0	64480	10.5	22180	34	0.5		
08-37.3633-105.7208-2-13-			0-C28781			78420	-0.08	856	24960	63	-114	9.4	30	-1.7	3	1.7	26970	8.8	22450	25	0.3		
08-37.2900-105.6994-2-15-			0-C28782			67410	-0.10	524	31190	71	-98	18.2	40	-2.1	3	2.2	55890	10.8	20570	49	0.5		
08-37.2767-105.6472-2-15-			0-C28783			69480	-0.11	748	24700	61	-95	15.2	31	3.9	5	1.7	38430	7.9	22270	37	0.5		
08-37.2628-105.6700-2-15-			0-C28784			65410	-0.10	514	27860	42	-107	31.3	57	3.5	4	1.8	89450	14.2	18960	43	0.4		
08-37.3736-105.6356-2-12-			0-C28787			69760	-0.10	673	26880	97	-128	14.2	43	-2.0	7	2.7	42360	19.6	26650	44	0.7		
08-37.1997-105.7381-2-15-			0-C28788			56780	-0.13	410	27130	71	-111	57.9	122	-2.9	3	2.2	165500	13.4	13760	39	0.3		
08-37.1742-105.7342-2-15-			0-C28789			45240	-0.13	352	24080	50	-118	61.6	189	-2.9	3	1.7	181000	15.3	9435	39	0.3		
08-37.2083-105.6472-2-15-			0-C28790			69380	-0.09	823	15110	71	-92	14.1	33	3.9	5	1.7	33490	10.3	23770	37	0.4		
08-37.2167-105.6556-2-15-			0-C28791			73410	-0.10	789	29690	95	-111	17.6	51	4.1	5	2.2	42150	10.2	21700	45	0.5		
08-37.2361-105.6286-2-15-			0-C28792			71760	-0.20	656	21730	64	-95	15.5	39	4.1	5	1.9	41530	9.6	20480	47	0.3		
08-37.1997-105.6775-2-15-			0-C28793			71870	-0.18	714	26900	82	-109	18.1	50	2.9	5	1.9	46290	12.3	18540	-18	0.3		
08-37.1861-105.6719-2-15-			0-C28794			65790	-0.22	513	18670	95	-91	12.0	53	3.2	6	2.4	34690	14.6	23270	73	0.7		
08-37.1836-105.6308-2-15-			0-C28795			66740	-0.21	680	25720	58	-90	10.8	30	3.0	6	1.7	26790	9.3	24460	-19	0.5		
08-37.1794-105.7147-2-15-			0-C28796			62020	-0.16	694	15510	62	-83	8.7	28	-1.6	6	1.7	22740	10.6	24410	53	0.5		
08-37.1792-105.7269-2-15-			0-C28797			68340	-0.17	818	22230	91	-102	10.7	31	3.3	6	1.4	25970	8.7	29970	49	0.6		
08-37.1831-105.7322-2-15-			0-C28798			69320	-0.22	505	36950	55	-98	24.5	71	3.5	3	2.1	66620	9.8	19990	-18	0.5		
08-37.2400-105.7369-2-15-			0-C28799			70970	-0.22	804	23000	56	-105	22.0	38	2.2	3	1.9	66280	9.8	19870	50	0.4		
08-37.1417-105.7475-2-15-			0-C28800			65000	-0.18	870	41870	60	-90	22.4	83	-1.8	4	1.9	51370	11.0	19940	38	0.4		
08-37.1372-105.7492-2-15-			0-C28801			67850	-0.20	718	29940	92	-117	28.3	96	2.1	4	1.9	76540	10.9	20200	42	0.4		
08-37.1433-105.7472-2-15-			0-C28802			62660	-0.25	542	33540	77	-99	38.5	225	3.3	3	2.4	101100	14.6	18990	53	0.4		
08-37.1050-105.7456-2-15-			0-C28803			63600	-0.24	714	28800	57	-103	28.9	114	3.2	4	1.8	74050	11.2	19610	-19	0.3		
08-37.0275-105.7483-2-15-			0-C28805			72170	-0.20	656	16880	82	-92	18.4	51	4.9	6	2.0	39270	9.1	21590	59	0.4		
08-37.0283-105.7267-2-97-			0-C28806			76960	-0.20	674	27020	101	-101	17.2	71	4.8	6	2.1	36830	7.2	25240	42	0.5		
08-37.0031-105.7131-2-15-			0-C28807			69130	-0.21	588	33950	60	-89	15.2	33	3.5	4	1.9	31200	8.3	22530	-23	0.4		
08-37.0264-105.6972-2-15-			0-C28808			64270	-0.21	585	9642	63	-97	14.8	43	3.4	6	1.6	31000	10.0	22980	-25	0.5		
08-37.0297-105.6750-2-15-			0-C28809			65950	-0.19	621	18480	72	-92	12.1	52	3.6	9	1.9	31630	17.1	26300	53	0.8		
08-37.0006-105.6539-2-15-			0-C28810			68330	-0.17	654	14480	92	-98	10.8	47	3.5	7	1.8	35090	19.5	25380	41	1.0		
08-37.0447-105.6547-2-15-			0-C28811			73750	-0.24	613	12760	86	-94	15.7	55	7.1	8	2.2	37550	9.3	27370	66	0.7		
08-37.0500-105.6283-2-15-			0-C28812			65280	-0.21	702	12650	58	-94	10.1	48	5.3	7	1.6	26360	8.5	25680	-20	0.6		
08-37.0692-105.6542-2-15-			0-C28813			66580	-0.16	703	14110	61	-84	10.9	35	3.1	5	1.7	25700	10.7	23530	-16	0.5		
08-37.0711-105.6514-2-15-			0-C28814			66130	-0.16	760	12930	76	-100	9.1	36	2.9	5	1.8	26540	13.7	22470	30	0.6		
08-37.0792-105.6764-2-15-			0-C28815			64280	-0.22	609	11830	98	-93	15.2	42	4.7	5	2.2	35740	16.2	21390	-22	0.6		
08-37.0781-105.6831-2-15-			0-C28816			60810	-0.22	721	16470	58	-89	11.1	49	3.8	5	1.7	28610	9.6	23290	-21	0.6		
08-37.1092-105.7178-2-97-			0-C28817			72240	-0.19	615	22900	50	-92	16.3	30	2.4	5	1.9	47380	10.0	22350	-18	0.4		
08-37.1011-105.7394-2-15-			0-C28818			73240	-0.19	765	28620	82	-113	18.0	34	3.2	4	2.1	52480	14.8	21600	46	0.5		
08-37.1181-105.6439-2-15-			0-C28819			69880	-0.22	634	20370	70	-94	15.3	44	3.9	4	2.2	38960	12.4	25380	-20	0.4		
08-37.1394-105.6697-2-97-			0-C28820			69290	-0.22	793	21540	67	-89	12.9	42	2.6	6	1.9	31630	10.5	25480	49	0.6		
08-37.1419-105.6303-2-15-			0-C28821			70200	-0.17	666	16940	56	-91	13.0	37	4.0	5	1.7	35550	11.9	25280	40	0.4		
08-37.1564-105.6259-2-15-			0-C28822			74570	-0.18	676	16960	92	-116	14.4	49	3.4	5	2.0	35370	11.1	19470	-18	0.4		
08-37.1456-105.3661-2-15-			0-C28823			58180	-0.22	781	69520	84	-85	12.7	45	3.5	5	2.0	31580	18.1	17380	63	0.6		
08-37.1267-105.3589-2-15-			0-C28824			63320	-0.20	712	13270	68	-90	8.5	30	2.1	7	1.6	22330	11.1	25630	-24	0.6		
08-37.1806-105.3328-2-15-			0-C28825			56240	-0.14	774	9834	48	-77	7.4	24	2.0	4	1.4	19280	7.8	25360	-14	0.3		
08-37.1808-105.3211-2-12-			0-C28826			68030	-0.19	693	15620	78	-114	11.2	37	2.4	5	1.9	30160	13.5	26190	-21	0.6		
08-37.1836-105.3131-2-12-			0-C28827			68230	-0.22	741	15740	80	-99	13.1	47	2.7	4	2.1	32610	13.3	25050	-24	0.7		
08-37.2122-105.2736-2-12-			0-C28828			69670	-0.26	724	19520	73	-112	13.2	35	3.5	6	2.1	33960	11.9	20830	61	0.6		
08-37.2250-105.2775-2-12-			0-C28829			73480	-0.21	892	19220	69	-107	17.0	57	2.8	5	2.1	38970	7.8	24810	-19	0.4		
08-37.4608-105.0319-2-15-			0-C28831			65570	-0.17	810	58980	83	-97	10.5	45	3.6	5	1.9	32670	12.9	18850	46	0.5		
08-37.4581-105.0306-2-12-			0-C28832			65270	-0.29	471	40330	107	-110	33.6	120	-3.0	6	3.4	71010	11.2	17390	69	0.5		
08-37.4200-105.0519-2-12-			0-C28833			72660	-0.16	932	19340	48	-93	9.2	23	1.5	3	1.5	19840	4.7	27980	-20	0.4		

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn		
08-37.2608-105.7297-2-15-					0-C28775	13250	875	21260	-43	-3	10.5	3.8	539	-1	-1	8.4	8164	188	3.0	116	0.324		
08-37.2769-105.7117-2-15-					0-C28776	12790	885	21040	52	-2	11.8	4.4	557	-1	-1	6.8	7289	199	3.7	130	0.406		
08-37.3633-105.7208-2-13-					0-C28781	7359	397	24020	58	-2	7.2	6.0	455	-1	-1	8.3	4847	80	2.7	75	0.387		
08-37.2900-105.6994-2-15-					0-C28782	13210	667	21380	72	-3	11.0	5.6	786	-1	-1	8.9	4796	118	3.8	-46	0.320		
08-37.2767-105.6472-2-15-					0-C28783	17700	713	16650	68	-3	9.6	3.4	357	-1	-1	8.3	5149	99	3.1	96	0.330		
08-37.2628-105.6700-2-15-					0-C28784	21910	1158	19240	-40	-3	14.5	4.6	555	-1	-1	7.8	10720	261	3.5	122	0.382		
08-37.3736-105.6356-2-12-					0-C28787	14000	940	21600	-35	-2	12.1	9.2	-403	-1	-1	9.3	6390	98	6.2	108	0.435		
08-37.1997-105.7381-2-15-					0-C28788	17920	1409	14920	-59	-3	17.6	5.6	-373	-2	-1	8.0	12480	393	4.1	323	0.329		
08-37.1742-105.7342-2-15-					0-C28789	22590	1718	12980	-57	-4	20.0	4.4	-410	2	-1	6.8	19130	531	-3.1	237	0.397		
08-37.2083-105.6472-2-15-					0-C28790	13280	849	16760	75	-2	9.2	4.9	-302	-1	-1	10.8	4412	86	5.7	140	0.331		
08-37.2167-105.6556-2-15-					0-C28791	16590	805	15940	66	-3	10.1	7.4	-371	-1	-1	13.1	5820	112	4.9	101	0.221		
08-37.2361-105.6286-2-15-					0-C28792	17370	788	16480	64	-5	10.3	4.1	555	-1	-1	10.3	4975	111	-2.8	103	0.285		
08-37.1997-105.6775-2-15-					0-C28793	19360	769	17900	54	-5	9.7	5.7	-347	-1	-1	11.4	6241	125	-3.4	87	0.261		
08-37.1861-105.6719-2-15-					0-C28794	12700	511	17220	78	-6	11.2	9.4	-263	-1	-1	12.7	4193	59	5.0	101	0.409		
08-37.1836-105.6808-2-15-					0-C28795	17050	554	16830	64	-5	8.8	3.2	-274	-1	-1	10.1	4010	69	3.5	58	0.443		
08-37.1794-105.7147-2-15-					0-C28796	11390	448	18820	67	-4	7.9	5.4	-235	1	-1	10.5	3206	55	4.9	65	0.434		
08-37.1792-105.7269-2-15-					0-C28797	13180	594	17560	62	-4	8.3	8.7	-318	-1	-1	9.7	3441	61	3.8	95	0.407		
08-37.1831-105.7322-2-15-					0-C28798	15700	781	18460	-45	-6	13.2	5.6	430	-1	-1	7.9	5971	155	4.2	124	0.328		
08-37.2400-105.7369-2-15-					0-C28799	13850	896	21710	-44	-6	11.9	3.8	518	-1	-1	7.0	7209	189	-3.1	-102	0.344		
08-37.1417-105.7475-2-15-					0-C28800	18970	711	17320	67	-5	10.9	4.2	366	-1	-1	8.9	7429	163	4.3	124	0.363		
08-37.1372-105.7492-2-15-					0-C28801	21340	1020	18250	-40	-5	12.1	6.4	-385	-1	-1	8.1	9137	244	-3.8	139	0.331		
08-37.1433-105.7472-2-15-					0-C28802	21390	962	16340	-55	-6	16.0	7.1	-312	-1	-1	10.6	11610	303	5.3	194	0.299		
08-37.1050-105.7456-2-15-					0-C28803	22970	1100	16890	-49	-6	12.8	5.3	490	-1	-1	8.8	10500	269	5.4	196	0.344		
08-37.0275-105.7483-2-15-					0-C28805	21230	980	12600	-39	-6	12.1	5.0	-336	-1	-1	11.4	5189	91	-3.0	161	0.260		
08-37.0283-105.7267-2-97-					0-C28806	21550	829	11960	68	-5	11.1	7.6	497	-1	-1	12.7	4593	79	4.9		0.228		
08-37.0031-105.7131-2-15-					0-C28807	13090	640	15200	77	-5	10.0	6.5	-275	-1	-1	10.4	4118	73	4.5	96	0.249		
08-37.0264-105.6972-2-15-					0-C28808	12060	1099	14040	-41	-5	9.3	4.9	-350	-1	-1	10.9	5128	77	-3.2	166	0.322		
08-37.0297-105.6750-2-15-					0-C28809	13330	649	17520	89	-5	10.3	5.6	-281	2	1	14.2	5147	83	7.0	-67	0.455		
08-37.0006-105.6539-2-15-					0-C28810	11390	635	16260	60	-4	8.5	5.9	-311	-1	-1	14.7	4776	88	7.1	52	0.314		
08-37.0447-105.6547-2-15-					0-C28811	15250	695	15570	81	-6	12.6	7.4	-291	-1	-1	14.7	3107	68	6.0	-112	0.469		
08-37.0500-105.6283-2-15-					0-C28812	11160	640	17610	73	-5	8.7	4.6	-287	-1	-1	10.6	3972	53	-3.1	135	0.575		
08-37.0692-105.6542-2-15-					0-C28813	9260	612	16990	82	-4	7.7	5.4	-258	-1	-1	10.0	4369	66	4.5	-86	0.353		
08-37.0711-105.6514-2-15-					0-C28814	11080	584	16970	72	-4	7.4	5.6	-298	-1	-1	9.9	4100	68	5.3	74	0.363		
08-37.0792-105.6764-2-15-					0-C28815	9874	923	14080	87	-6	10.8	5.4	-308	-1	-1	13.2	4322	68	5.5	86	0.273		
08-37.0781-105.6831-2-15-					0-C28816	13960	773	14150	-39	-5	8.1	4.3	-304	-1	-1	9.9	3960	71	3.5	130	0.288		
08-37.1092-105.7178-2-97-					0-C28817	15480	666	17820	57	-5	10.7	3.7	-279	-1	-1	8.3	6153	135	3.8	143	0.339		
08-37.1011-105.7394-2-15-					0-C28818	15870	814	18850	69	-5	10.2	7.8	-358	-1	-1	9.3	6520	162	-2.8	98	0.335		
08-37.1181-105.6439-2-15-					0-C28819	17040	662	16990	104	-5	10.8	7.9	388	-1	-1	12.4	3815	90	-3.6	73	0.249		
08-37.1394-105.6697-2-97-					0-C28820	16280	623	16160	-39	-5	9.7	5.4	-282	-1	-1	12.1	4618	91	6.2	76	0.333		
08-37.1419-105.6303-2-15-					0-C28821	12500	698	17430	63	-4	9.0	4.9	-276	1	-1	9.8	4586	90	3.9	98	0.335		
08-37.1564-105.6269-2-15-					0-C28822	12960	945	17190	61	-5	9.3	6.7	-385	1	-1	11.1	5139	91	5.7	122	0.294		
08-37.1456-105.3661-2-15-					0-C28823	19130	439	12960	85	-6	9.7	5.1	466	-1	-1	13.3	3903	91	5.7	-17	0.753		
08-37.1267-105.3589-2-15-					0-C28824	9475	434	17310	88	-6	7.0	5.3	-265	-1	-1	10.0	3533	51	5.0	97	0.582		
08-37.1806-105.3328-2-15-					0-C28825	7163	401	16310	62	-4	5.5	4.2	-220	-1	-1	6.5	3583	50	2.5	41	0.363		
08-37.1808-105.3211-2-12-					0-C28826	16050	642	19370	-34	-5	8.7	5.0	-361	2	-1	10.2	3834	70	4.5	39	0.597		
08-37.1836-105.3131-2-12-					0-C28827	10880	508	20840	78	-6	9.7	6.1	611	-1	-1	10.2	4268	71	-3.6	63	0.505		
08-37.2122-105.2786-2-12-					0-C28828	13870	944	20250	-50	-7	11.4	6.7	-366	-1	-1	11.3	4985	91	-3.9	107	0.771		
08-37.2250-105.2775-2-12-					0-C28829	18110	794	20270	87	-5	11.0	6.8	-331	-1	-1	9.2	5126	104	3.0	222	0.368		
08-37.4608-105.0319-2-15-					0-C28831	13870	447	15910	50	-4	7.8	7.3	-291	-1	-1	11.2	4506	112	3.6	62	0.305		
08-37.4581-105.0306-2-12-					0-C28832	34900	1150	18560	-54	-8	26.7	9.9	-353	-1	-2	12.5	5637	179	7.3	123	0.318		
08-37.4200-105.0519-2-12-					0-C28833	10140	394	24560	72	-4	5.5	3.5	757	-1	-1	5.5	2962	55	-2.3	71	0.356		

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION																																																																																																																																																																																																																																																																		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SALINOMETER (eu/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm																																																																																																																																																																																																																																																										
							DATE	HOUR																																																																																																																																																																																																																																																																																				
08-37.4089-105.0678-2-12-	08-37.3075-105.9511-2-97-	08-37.1500-105.9075-2-15-	08-37.1508-105.9489-2-12-	08-37.1628-105.8900-2-15-	08-37.2428-105.8783-2-12-	08-37.3517-105.4058-2-97-	08-37.3628-105.4711-2-97-	08-37.3658-105.4767-2-15-	08-37.0906-105.7519-2-15-	08-37.0800-105.7631-2-15-	08-37.0908-105.8019-2-14-	08-37.1147-105.8250-2-15-	08-37.0867-105.8667-2-15-	08-37.0711-105.8681-2-15-	08-37.0444-105.8008-2-15-	08-37.0222-105.7672-2-15-	08-37.0339-105.8086-2-15-	08-37.0083-105.8061-2-15-	08-37.0089-105.8300-2-97-	08-37.2900-105.4231-2-97-	08-37.2794-105.4236-2-15-	08-37.2142-105.4233-2-97-	08-37.2183-105.4164-2-15-	08-37.2017-105.4139-2-15-	08-37.1986-105.4028-2-15-	08-37.1967-105.4022-2-15-	08-37.1597-105.4331-2-12-	08-37.1839-105.4253-2-12-	08-37.1917-105.4519-2-15-	08-37.1483-105.4947-2-15-	08-37.1408-105.4986-2-15-	08-37.2422-105.4919-2-15-	08-37.2411-105.4358-2-15-	08-37.2422-105.4839-2-15-	08-37.4006-105.0811-2-12-	08-37.4233-105.8744-2-12-	08-37.4108-105.8175-2-13-	08-37.4956-105.8581-2-97-	08-37.4439-105.7753-2-11-	08-37.4928-105.7367-2-13-	08-37.4522-105.6561-2-97-	08-37.4203-105.6703-2-15-	08-37.4336-105.6844-2-15-	08-37.2919-105.4325-2-15-	08-37.3906-105.5422-2-97-	08-37.4175-105.5994-2-97-	08-37.3947-105.6106-2-97-	08-37.3758-105.9172-2-13-	08-37.4578-105.9161-2-12-	08-37.4972-105.9181-2-14-	0-C28834-04/09/76-14-	0-C28847-03/08/76-12-	0-C28854-03/09/76-10-	0-C28855-03/09/76-11-	0-C28862-03/09/76-16-	0-C28863-03/10/76-10-	0-C28864-03/10/76-13-	0-C28865-03/10/76-13-	0-C28866-03/10/76-14-	0-C28867-03/10/76-15-	0-C28868-03/10/76-15-	0-C28869-03/10/76-16-	0-C28870-03/10/76-16-	0-C28871-03/10/76-16-	0-C28872-03/10/76-17-	0-C28873-03/11/76-14-	0-C28874-03/11/76-15-	0-C28875-03/11/76-15-	0-C28876-03/11/76-16-	0-C28877-03/11/76-16-	0-C28878-03/12/76-10-	0-C28879-03/12/76-10-	0-C28880-03/12/76-10-	0-C28881-03/12/76-10-	0-C28882-03/12/76-11-	0-C28883-03/12/76-11-	0-C28884-03/12/76-11-	0-C28885-03/12/76-12-	0-C28886-03/12/76-12-	0-C28887-03/12/76-13-	0-C28888-03/12/76-14-	0-C28889-03/12/76-14-	0-C28890-03/12/76-15-	0-C28891-03/12/76-15-	0-C28892-03/12/76-15-	0-C28896-04/09/76-15-	0-C28897-03/17/76-9-	0-C28902-03/17/76-11-	0-C28906-03/17/76-13-	0-C28910-03/17/76-14-	0-C28914-03/17/76-16-	0-C28917-03/18/76-11-	0-C28918-03/18/76-13-	0-C28919-03/18/76-13-	0-C28920-03/22/76-15-	0-C28922-03/29/76-12-	0-C28923-03/29/76-13-	0-C28924-03/29/76-13-	0-C28928-03/16/76-11-	0-C28933-03/16/76-17-	0-C28943-03/17/76-17-	12-8.4-	4-	10-	2-	10-	5-	10-	16-	11-	12-	9-	12-	9-	10-	5-	12-	14-	8-13.5-	12-	9-	10-	5-	5-	7-	4-	4-	-3-	-4-	-1-	2-	2-	8-	7-	6-	8-	11-	13-	15-	11-	11-	16-	17-	13-	3-	4-	5-	5-	9-	11-	6-	2.5-	7.5-	15-	13-	18.8-	15.5-	11-	11-	16-	13-	13-	3-	4-	5-	4.9-	11.5-	10.5-	8.3-	218-	149-	171-	100-	210-	220-	212-	600-	1800-	600-	700-	799-	599-	170-	7-3-6-1-6-4-4-2-2-3-4-2-	1-1-8-7-6-1-3-3-2-2-3-	7-1-6-4-6-1-4-3-3-1-3-	7-1-6-6-6-1-4-3-2-2-3-	12-1-6-4-6-3-3-1-1-2-3-1-1-	10-1-6-4-6-4-2-1-1-1-1-	7-1-7-4-7-1-4-3-3-1-1-1-	10-1-6-4-6-1-1-3-3-3-1-3-	12-1-7-4-1-1-1-3-2-2-2-1-	15-1-8-4-1-1-1-3-2-2-2-3-	13-1-8-6-6-1-2-3-3-2-3-2-3-	9-1-8-4-6-2-2-3-3-5-5-3-	14-1-8-4-6-1-4-2-3-3-3-	12-1-8-3-6-1-1-3-2-4-3-1-	7-1-8-4-6-3-3-2-4-2-3-	14-1-8-4-6-3-3-2-2-2-3-	19-1-8-4-6-3-4-2-4-2-3-	6-1-8-4-6-3-3-2-4-2-3-	7-1-8-4-6-4-2-2-2-3-	15-4-9-4-6-1-1-3-3-2-1-9-	9-4-9-4-6-1-1-3-3-2-1-9-	15-1-6-5-6-2-2-3-3-1-3-	9-1-6-4-6-2-2-3-3-3-1-3-	9-1-6-4-6-4-3-2-2-1-3-	13-1-7-4-6-4-4-2-3-1-3-	12-1-1-4-6-2-3-2-3-1-1-	17-1-1-3-1-3-3-1-3-3-2-3-1-	10-1-8-4-6-3-3-2-3-4-3-4-1-	15-1-1-4-6-2-2-3-3-4-2-3-	17-1-6-4-6-2-2-3-3-4-2-3-	12-1-6-4-6-1-2-3-3-4-2-3-	14-4-9-4-6-1-1-3-3-3-2-1-3-	14-4-9-4-6-1-1-3-3-3-2-1-3-	14-4-9-4-6-1-1-3-3-3-2-1-3-	10-3-6-4-6-3-3-1-2-1-3-4-2-1-	7-1-9-5-6-3-3-4-1-4-3-1-1-3-	14-1-7-4-6-1-1-3-5-6-3-1-2-3-	14-1-9-4-6-6-3-1-2-3-	9-1-7-6-7-2-2-2-4-3-1-2-3-	15-1-9-6-6-1-2-2-4-2-2-2-3-	7-1-9-4-6-3-2-2-1-1-1-	9-1-1-4-7-3-2-1-1-1-1-	7-1-1-4-6-3-2-1-1-1-1-	15-1-6-4-6-3-3-2-1-1-1-	12-1-7-4-7-1-3-2-3-3-1-1-	12-1-6-2-6-2-2-3-1-3-3-1-1-	12-4-3-4-6-1-1-3-2-1-3-	11-4-4-6-2-2-3-3-1-1-9-	9-4-5-6-3-3-3-1-3-2-1-1-9-	17-4-4-6-3-2-4-2-1-2-9-	4.26	2.83	1.89	1.66	2.35	1.88	2.49	4.28	2.83	2.62	2.82	2.40	2.02	3.19	2.39	2.60	2.94	2.49	2.47	2.40	3.54	2.62	5.31	4.92	12.42	6.57	4.45	5.85	5.43	3.03	5.29	3.12	4.08	3.60	3.72	4.07	2.90	3.57	6.57	3.85	3.28	1.90	2.25	2.71	3.43	4.07	3.19	3.65	3.61	3.03	3.10

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.4089-105.0678-2-12-						0-C28834	-5	-5	-5	15	-20	-15	9	-10	-15		3	44
08-37.3075-105.9511-2-97-						0-C28847	-5	-5	-5	53	-20	-15	17	-10	21		3	21
08-37.1500-105.9075-2-15-						0-C28854	-5	-5	-5	27	-20	-15	6	-10	-15		2	32
08-37.1508-105.9489-2-12-						0-C28855	-5	-5	-5	32	-20	-15	-5	-10	-15		2	32
08-37.1628-105.8900-2-15-						0-C28862	-5	-5	-5	30	-20	-15	-5	-10	-15		2	45
08-37.2428-105.8783-2-12-						0-C28863	-5	-5	-5	19	-20	-15	-5	-10	-15		2	37
08-37.3517-105.4058-2-97-						0-C28864	-5	-5	-5	30	-20	-15	11	-10	-15		3	27
08-37.3628-105.4711-2-97-						0-C28865	-5	-5	-5	48	-20	-15	-5	-10	-15		3	50
08-37.3658-105.4767-2-15-						0-C28866	-5	-5	-5	26	-20	18	5	-10	16		3	34
08-37.0906-105.7519-2-15-						0-C28867	-5	-5	-5	39	-20	22	5	-10	-15		3	46
08-37.0800-105.7631-2-15-						0-C28868	-5	-5	-5	30	-20	-15	-5	-10	-15		3	40
08-37.0908-105.8019-2-14-						0-C28869	-5	-5	-5	37	-20	15	8	-10	-15		3	50
08-37.1147-105.8250-2-15-						0-C28870	-5	-5	-5	23	-20	59	-5	-10	-15		1	25
08-37.0867-105.8667-2-15-						0-C28871	-5	-5	-5	29	-20	-15	8	-10	-15		3	42
08-37.0711-105.8681-2-15-						0-C28872	-5	-5	-5	24	-20	16	-5	-10	-15		2	44
08-37.0444-105.8008-2-15-						0-C28873	-5	-5	-5	22	-20	24	5	-10	-15		2	39
08-37.0222-105.7672-2-15-						0-C28874	-5	-5	-5	42	-20	16	11	-10	-15		3	39
08-37.0339-105.8086-2-15-						0-C28875	-5	-5	-5	30	-20	37	8	-10	-15		3	44
08-37.0083-105.8061-2-15-						0-C28876	-5	-5	-5	16	-20	22	7	-10	-15		3	40
08-37.0089-105.8300-2-97-						0-C28877	-5	-5	-5	33	-20	49	7	-10	-15		3	41
08-37.2900-105.4231-2-97-						0-C28878	-5	-5	-5	44	-20	15	19	-10	-15		3	49
08-37.2794-105.4236-2-15-						0-C28879	-5	-5	-5	23	-20	-15	9	-10	-15		3	42
08-37.2142-105.4233-2-97-						0-C28880	-5	-5	-5	40	-20	-15	21	-10	-15		3	53
08-37.2183-105.4164-2-15-						0-C28881	-5	-5	-5	19	-20	19	9	-10	-15		3	32
08-37.2017-105.4139-2-15-						0-C28882	8	-5	-5	23	-20	28	5	24	-15			
08-37.1986-105.4028-2-15-						0-C28883	-5	-5	-5	33	-20	-15	11	-10	-15		2	28
08-37.1967-105.4022-2-15-						0-C28884	-5	-5	-5	25	-20	15	10	-10	-15		3	22
08-37.1597-105.3831-2-12-						0-C28885	-5	-5	-5	25	-20	22	7	-10	-15		4	37
08-37.1839-105.4253-2-12-						0-C28886	-5	-5	-5	29	-20	-15	10	-10	-15		4	46
08-37.1917-105.4519-2-15-						0-C28887	-5	-5	-5	18	-20	-15	11	-10	-15		3	28
08-37.1483-105.4947-2-15-						0-C28888	-5	-5	-5	27	20	15	-5	-10	-15		2	32
08-37.1408-105.4986-2-15-						0-C28889	-5	-5	-5	19	-20	-15	8	-10	-15		3	27
08-37.2422-105.4919-2-15-						0-C28890	-5	-5	-5	23	-20	-15	11	-10	-15		3	34
08-37.2411-105.4858-2-15-						0-C28891	-5	-5	-5	39	-20	-15	-5	-10	-15		3	44
08-37.2422-105.4839-2-15-						0-C28892	-5	-5	-5	37	-20	-15	12	-10	-15		4	36
08-37.4006-105.0811-2-12-						0-C28896	-5	-5	-5	27	-20	-15	12	-10	-15		3	35
08-37.4233-105.8744-2-12-						0-C28897	-5	-5	-5	16	-20	-15	5	-10	-15		2	33
08-37.4108-105.8175-2-13-						0-C28902	-5	-5	-5	24	-20	19	5	-10	-15		3	37
08-37.4956-105.8581-2-97-						0-C28906	-5	-5	-5	31	-20	-15	11	-10	-15		2	38
08-37.4439-105.7753-2-11-						0-C28910	-5	-5	-5	18	-20	-15	10	-10	-15		3	45
08-37.4928-105.7367-2-13-						0-C28914	-5	-5	-5	13	-20	-15	10	-10	-15		3	40
08-37.4522-105.6561-2-97-						0-C28917	-5	-5	-5	18	-20	-15	-5	-10	-15		2	49
08-37.4203-105.6703-2-15-						0-C28918	-5	-5	-5	26	-20	-15	5	-10	-15		1	27
08-37.4336-105.6844-2-15-						0-C28919	-5	-5	-5	11	-20	-15	8	-10	-15		2	27
08-37.2919-105.4325-2-15-						0-C28920	-5	-5	-5	23	-20	-15	6	-10	-15		3	41
08-37.3906-105.5422-2-97-						0-C28922	6	-5	-5	30	-20	-15	-5	-10	-15		2	21
08-37.4175-105.5994-2-97-						0-C28923	-5	-5	-5	21	-20	-15	-5	-10	-15		2	50
08-37.3947-105.6106-2-97-						0-C28924	-5	-5	-5	57	20	26	13	-10	-15		-1	31
08-37.3758-105.9172-2-13-						0-C28928	-5	-5	-5	36	21	-15	11	-10	-15		2	39
08-37.4578-105.9161-2-12-						0-C28933	-5	-5	-5	18	-20	-15	6	-10	-15		3	39
08-37.4972-105.9681-2-14-						0-C28943	-5	-5	-5	15	-20	-15	-5	-10	-15		2	36

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
08-37.4089-105.0478-2-12-			0-C28834			65720	-0.10	758	9917	51	-99	10.2	37	2.5	7	1.7	29980	12.2	20820	27	0.6		
08-37.3075-105.9511-2-97-			0-C28847			82220	-0.11	715	11560	59	-100	25.3	30	-2.3	4	1.7	52670	8.1	20390	34	-0.1		
08-37.1500-105.9075-2-15-			0-C28854			83010	-0.10	577	32680	68	-114	18.0	34	-2.1	3	2.0	43390	6.6	18180	30	0.3		
08-37.1508-105.9489-2-12-			0-C28855			81530	-0.14	710	37170	56	-114	22.7	41	-3.0	4	2.2	55830	5.5	15330	32	0.5		
08-37.1628-105.8900-2-15-			0-C28862			84580	-0.14	628	28320	53	96	18.7	30	4.6	4	2.0	41390	5.5	21120	36	0.4		
08-37.2428-105.8783-2-12-			0-C28863			79170	-0.10	708	43240	61	-124	17.8	29	2.9	4	1.9	48940	6.4	21830	33	0.3		
08-37.3517-105.4058-2-97-			0-C28864			71820	-0.07	854	16720	64	-101	9.0	32	-1.5	3	1.9	21670	5.1	25610	37	0.4		
08-37.3628-105.4711-2-97-			0-C28865			72270	-0.12	816	17870	96	-102	20.2	45	3.6	6	2.5	58590	9.7	25630	54	0.5		
08-37.3658-105.4767-2-15-			0-C28866			67950	-0.11	746	23200	55	-99	15.7	44	-2.1	4	2.0	54570	13.1	20580	43	0.5		
08-37.0906-105.7519-2-15-			0-C28867			74790	-0.10	720	24520	71	-107	18.1	51	4.2	4	1.9	34680	7.5	24770	44	0.3		
08-37.0800-105.7431-2-15-			0-C28868			70440	-0.09	562	20600	91	-93	16.0	47	5.0	4	1.7	40160	11.0	18910	37	0.5		
08-37.0908-105.8019-2-14-			0-C28869			74610	-0.13	739	45410	85	-97	21.4	70	5.2	4	2.2	43260	10.2	21570	49	0.4		
08-37.1147-105.8250-2-15-			0-C28870			55390	-0.13	656	26340	47	-114	52.2	141	2.6	3	1.7	149800	10.0	11640	32	0.3		
08-37.0867-105.8667-2-15-			0-C28871			77300	-0.10	713	23400	63	-102	15.2	61	5.4	4	1.9	40960	8.5	20490	36	0.3		
08-37.0711-105.8681-2-15-			0-C28872			66890	-0.09	580	46610	81	-93	19.1	72	3.5	4	2.0	52300	8.7	19000	34	0.3		
08-37.0444-105.8608-2-15-			0-C28873			59150	-0.12	622	53190	71	-86	26.4	98	4.4	4	1.9	71110	13.9	14740	45	0.5		
08-37.0222-105.7672-2-15-			0-C28874			69460	-0.11	664	19420	63	-90	18.4	54	4.1	5	1.7	37770	8.6	22290	40	0.4		
08-37.0339-105.8086-2-15-			0-C28875			69220	-0.10	696	37100	57	-100	24.6	82	3.4	5	1.7	45000	8.8	19130	43	0.3		
08-37.0083-105.8061-2-15-			0-C28876			67930	-0.09	601	27370	84	-83	14.2	62	4.6	4	1.8	28720	9.2	19380	30	0.4		
08-37.0089-105.8000-2-97-			0-C28877			66120	-0.12	570	30890	72	-80	19.7	73	4.6	4	2.2	42890	9.7	19940	39	0.4		
08-37.2900-105.4231-2-97-			0-C28878			74530	-0.12	834	14170	83	-96	12.4	43	5.5	6	1.9	35850	9.7	23290	47	0.5		
08-37.2794-105.4236-2-15-			0-C28879			68480	-0.08	722	36380	53	-98	10.2	29	3.6	4	1.6	26170	8.6	23110	32	0.3		
08-37.2142-105.4233-2-97-			0-C28880			76080	-0.10	553	14280	112	-88	13.3	43	4.2	5	2.3	33690	6.3	23610	51	0.6		
08-37.2183-105.4164-2-15-			0-C28881			60460	-0.10	777	13740	102	-89	15.2	56	3.3	5	2.2	55060	32.6	20480	55	0.8		
08-37.2017-105.4139-2-15-			0-C28882			53250	-0.16	554	15710	89	-107	20.9	92	-3.2	9	2.8	123500	69.0	19260	60	1.0		
08-37.1986-105.4028-2-15-			0-C28883			57470	-0.10	558	15430	71	-103	17.6	66	-2.0	6	1.8	103100	25.7	19710	39	0.8		
08-37.1967-105.4022-2-15-			0-C28884			59750	-0.08	587	15110	99	-91	12.4	53	-1.6	5	2.0	50070	21.5	24020	38	0.7		
08-37.1597-105.3E31-2-12-			0-C28885			67200	-0.12	782	13840	77	-104	13.1	40	3.3	5	2.2	35540	12.1	22990	49	0.7		
08-37.1839-105.4253-2-12-			0-C28886			65260	-0.11	715	16520	60	-105	9.5	29	2.6	7	1.8	26650	15.1	23940	32	0.7		
08-37.1917-105.4519-2-15-			0-C28887			66230	-0.08	661	19920	53	-101	13.1	32	3.2	5	1.6	33620	11.3	21500	34	0.5		
08-37.1483-105.4547-2-15-			0-C28888			61740	-0.10	458	24490	95	-97	22.1	95	2.0	5	2.0	66880	24.4	18730	44	0.9		
08-37.1408-105.4586-2-15-			0-C28889			66890	-0.09	823	16510	58	-92	12.7	45	-1.9	4	1.7	39340	14.0	23690	35	0.7		
08-37.2422-105.4519-2-15-			0-C28890			67470	-0.11	736	14530	67	-97	14.1	46	3.4	5	1.7	35830	13.2	22410	48	0.5		
08-37.2411-105.4558-2-15-			0-C28891			74380	-0.10	702	12150	84	-111	16.4	27	4.1	6	1.9	32800	7.4	27400	41	0.5		
08-37.2422-105.4339-2-15-			0-C28892			74290	-0.10	711	11440	122	-102	14.6	37	5.0	5	2.2	32930	9.6	26480	44	0.7		
08-37.4006-105.0311-2-12-			0-C28896			66670	-0.11	767	10750	60	-105	12.6	34	-2.3	6	2.0	32380	12.6	23160	34	0.7		
08-37.4233-105.8744-2-12-			0-C28897			68010	-0.12	812	52620	51	-102	9.5	24	-2.3	4	1.7	29180	6.3	21180	34	0.3		
08-37.4108-105.8175-2-13-			0-C28902			79870	-0.10	936	25160	69	191	17.5	24	6.0	4	2.0	46000	9.2	26120	35	0.4		
08-37.4956-105.8581-2-97-			0-C28906			75550	-0.13	660	29440	84	83	12.4	20	8.1	5	1.9	35970	7.0	20870	42	0.4		
08-37.4439-105.7753-2-11-			0-C28910			74380	-0.13	751	24140	87	-113	12.7	27	7.2	4	2.3	32750	8.9	27050	52	0.4		
08-37.4928-105.7367-2-13-			0-C28914			77070	-0.10	851	32990	60	-106	6.7	14	3.0	4	1.9	19990	6.4	28440	37	0.3		
08-37.4522-105.6561-2-97-			0-C28917			27310	-0.07	668	176600	20	-94	6.7	-9	-1.4	2	0.8	12830	1.8	14470	16	-0.1		
08-37.4203-105.6703-2-15-			0-C28918			74630	-0.08	792	21130	64	-97	10.7	27	-1.5	3	1.8	33020	7.6	21820	30	0.4		
08-37.4336-105.6844-2-15-			0-C28919			73960	-0.11	745	22580	68	-99	17.9	38	2.8	3	2.3	60320	12.4	20360	35	0.5		
08-37.2919-105.4325-2-15-			0-C28920			68390	-0.10	788	14610	60	-94	12.8	40	2.9	5	1.8	33330	11.2	22940	40	0.5		
08-37.3906-105.5422-2-97-			0-C28922			61380	-0.10	567	20250	78	-120	29.7	68	-2.1	5	2.2	103500	23.2	15830	47	0.6		
08-37.4175-105.5994-2-97-			0-C28923			68910	-0.10	520	21840	100	-101	20.1	57	3.1	4	2.2	74410	19.5	16130	33	0.6		
08-37.3947-105.6106-2-97-			0-C28924			62490	-0.13	606	23380	80	-104	33.9	82	5.4	5	2.5	125000	26.4	17270	46	0.6		
08-37.3758-105.9172-2-13-			0-C28928			66130	-0.12	692	37930	65	-106	16.5	25	-2.4	4	1.7	42810	8.5	20600	35	0.4		
08-37.4578-105.9161-2-12-			0-C28933			77750	-0.09	896	41210	53	-122	9.6	24	-1.8	5	1.9	22840	8.0	22450	33	0.3		
08-37.4972-105.9681-2-14-			0-C28943			74630	-0.09	861	24100	64	-97	13.1	19	-1.8	4	2.0	45620	9.4	24430	42	0.3		

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																						U CONCENTRATION																																																																																																																																																																																																																																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REMARKS	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (nCi/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm																																																																																																																																																																																																																											
							DATE	HOUR																																																																																																																																																																																																																																																					
08-37.7069-105.3692-2-12-	08-37.3517-105.3400-2-12-	08-37.3339-105.3431-2-15-	08-37.3253-105.3094-2-12-	08-37.3019-105.3506-2-15-	08-37.1264-105.2656-2-12-	08-37.5644-105.6900-2-97-	08-37.5628-105.7075-2-97-	08-37.5397-105.7183-2-97-	08-37.6631-105.6036-2-15-	08-37.3758-105.6567-2-15-	08-37.3917-105.6525-2-15-	08-37.3831-105.5217-2-15-	08-37.4986-105.5158-2-11-	08-37.4981-105.5417-2-14-	08-37.4842-105.5183-2-15-	08-37.4739-105.5067-2-15-	08-37.3944-105.5200-2-12-	08-37.4017-105.5139-2-12-	08-37.3786-105.6044-2-15-	08-37.4575-105.6186-2-15-	08-37.4886-105.6017-2-15-	08-37.4250-105.4136-2-12-	08-37.4250-105.4039-2-15-	08-37.4339-105.3531-2-15-	08-37.4331-105.3769-2-15-	08-37.3919-105.4072-2-12-	08-37.4472-105.4250-2-12-	08-37.4881-105.4264-2-15-	08-37.4778-105.4275-2-15-	08-37.4781-105.4297-2-15-	08-37.4778-105.4217-2-15-	08-37.4392-105.4556-2-15-	08-37.4678-105.4633-2-15-	08-37.4772-105.4550-2-15-	08-37.5894-105.5650-2-15-	08-37.6039-105.7294-2-13-	08-37.6183-105.5492-2-12-	08-37.6067-105.5842-2-11-	08-37.5511-105.5975-2-97-	08-37.5278-105.5739-2-15-	08-37.5158-105.5653-2-97-	08-37.5053-105.5422-2-15-	08-37.5881-105.6103-2-15-	08-37.5639-105.5764-2-99-	08-37.6983-105.5414-2-15-	08-37.6336-105.5986-2-15-	08-37.6511-105.5825-2-15-	08-37.6522-105.5653-2-15-	08-37.6400-105.5461-2-12-	08-37.6461-105.5464-2-12-	0-C28944-04/10/76-13-	0-C28945-03/24/76-11-	0-C28946-03/24/76-13-	0-C28947-03/24/76-14-	0-C28948-03/24/76-15-	0-C28949-03/06/76-16-	0-C28960-03/22/76-10-	0-C28961-03/22/76-10-	0-C28963-03/22/76-11-	0-C28968-03/25/76-11-	0-C28990-03/18/76-14-	0-C28991-03/18/76-14-	0-C28992-03/18/76-15-	0-C28995-03/18/76-16-	0-C28996-03/19/76-10-	0-C28997-03/18/76-11-	0-C28998-03/19/76-12-	0-C28999-03/19/76-12-	0-C29000-03/19/76-14-	0-C29001-03/19/76-14-	0-C29003-03/19/76-15-	0-C29004-03/19/76-15-	0-C29005-03/19/76-12-	0-C29006-03/19/76-12-	0-C29007-03/19/76-12-	0-C29008-03/19/76-13-	0-C29010-03/19/76-14-	0-C29011-03/19/76-15-	0-C29012-03/19/76-17-	0-C29013-03/19/76-17-	0-C29014-03/19/76-17-	0-C29015-03/19/76-17-	0-C29016-03/19/76-18-	0-C29017-03/19/76-18-	0-C29018-03/20/76-14-	0-C29020-03/24/76-16-	0-C29021-03/23/76-10-	0-C29023-03/23/76-12-	0-C29024-03/23/76-13-	0-C29025-03/23/76-14-	0-C29026-03/23/76-15-	0-C29027-03/23/76-15-	0-C29028-03/23/76-15-	0-C29029-03/23/76-16-	0-C29031-03/24/76-13-	0-C29032-03/26/76-10-	0-C29034-03/25/76-12-	0-C29035-03/25/76-12-	0-C29036-03/25/76-13-	0-C29037-03/25/76-14-	0-C29038-03/25/76-14-	10-15.2--8.2-	10-3.1--7.7-	14--C-	10-8.1-C-7.7-	13--C-	4-0.9-C-7.1-	5--C-	5--C-	10--C-	17--C-	16--C-	10-9.5-C-8.8-	8-5.2-C-7.5-	12--C-	12--C-	10-8.5-C-7.4-	13--C-	14--C-	13-3.8-C-8.7-	10-8.5-C-7.4-	13--C-	14--C-	8-4.2--8.0-	10--C-	12--C-	12--C-	10-7.2--8.7-	8-5.0--7.9-	8--C-	8--C-	7--C-	7--C-	5--C-	1--C-	15--C-	11--C-	5-2.5-C-7.5-	15-1.1-C-6.5-	17--C-	17--C-	16--C-	14--C-	15--C-	15--C-	14--C-	3--C-	17--C-	18--C-	16--C-	11-1.5-C-7.8-	11-3.0-C-7.2-	12-3-1-3-4-2-2-1-2-1-3-4-1-1-1-	9-4--4-6-2-2-2-3-4-1-1-1-	14-4--4-6-1-2-3-2-4-1-1-1-	6-4--3-4-2-2-1-2-7-3-5-1-1-1-	10-4--4-6-1-2-3-2-4-1-1-1-	33-2-8-4-7-4-3-1-2-2-3-4-1-1-1-	10-1-9-4-6--3-1-2-1-1-1-1-	14-1-9-4-6--3-2-2-1-1-1-1-	12-1-9-4-6--3-3-2-1-1-1-1-	10-1-7-4-7--1-3-2-1-2-3-1-1-1-	14-1-7-4-7--1-2-3-2-4-2-3-1-1-	12-1-6-4-6--2-3-2-4-2-3-1-1-	12-1-7-4-6--2-3-2-3-2-8-1-1-	6-1-7-3-7-3-3-1-4-3-4-2-3-1-1-	14-1-7-4-6-3-3-2-3-2-3-3-3-1-1-	14-1-1-4-7--1-3-3-3-3-3-1-1-	10-1-7-4-6--1-3-2-2-3-3-1-1-	12-1-9-6-6-3-3-1-1-2-3-1-3-3-1-1-	4-1-7-5-6-3-3-1-1-2-3-1-3-3-1-1-	12-1-9-4-6--1-2-2-2-3-3-1-1-	9-1-9-4-6--1-3-2-1-3-7-1-1-	12-1-7-4-6--1-3-2-1-3-3-1-1-	7-3-7-3-6-3-3-2-2-3-2-3-2-3-1-1-	11-4--4-6-1-2-3-2-3-3-3-1-1-	7-4--4-6-1-2-3-2-3-3-3-1-1-	8-4--4-6-1-2-3-2-3-3-3-1-1-	14-3-7-3-6-3-3-1-2-3-2-3-3-3-1-1-	4-4--2-1-3-3-1-2-4-3-3-3-3-1-1-	12-4-1-4-4--1-2-3-2-4-3-1-1-1-	11-4--3-4-1-2-3-3-4-3-1-1-1-	14-4--4-6-1-2-3-2-4-2-1-1-1-	10-4--4-6-1-2-3-2-3-3-1-1-1-	12-4--3-4-1-2-3-2-3-3-3-1-1-	12-3-7-4-4--1-2-3-2-3-3-1-1-1-	7-3-7-4-6--1-3-2-2-2-3-1-1-1-	10-1-1-4-6--2-1-4-5-1-2-1-1-1-	18-1-9-6-7--3-3-2-3-3-1-1-1-	4-1-7-2-7-2-2-1-2-1-4-5-2-2-1-1-	7-1-1-2-4-2-2-1-2-1-2-4-3-3-1-1-	10-1-1-4-6--4-2-3-3-7-1-1-1-	4-1-1-4-6--2-3-3-4-3-3-1-1-1-	4-1-1-5-6--4-2-3-2-3-1-1-1-	7-1-1-4-6--2-3-2-4-3-7-1-1-1-	10-1-7-4-6--1-3-3-2-3-3-1-1-1-	6-1-1-3-7--1-4-4-2-1-1-1-1-	12-1-1-4-6--2-1-3-3-2-1-1-1-1-	12-1-1-4-6--1-3-3-3-2-3-1-1-1-	9-1-1-4-6--2-2-4-3-2-3-1-1-1-	9-1-1-4-6--2-2-4-3-2-3-1-1-1-	7-1-1-2-1-2-2-1-2-1-3-5-2-1-1-1-	9-1-1-4-6-3-3-1-2-2-3-4-2-1-1-1-	3.77	2.79	3.04	7.89	3.47	30.89	2.97	2.69	3.07	3.64	3.10	3.19	3.12	1.50	2.38	2.27	3.87	5.95	3.56	3.31	3.46	2.96	3.92	5.61	3.51	3.39	4.21	4.56	4.97	4.72	2.98	3.18	3.95	3.31	3.38	2.80	2.40	3.09	2.98	2.78	2.61	1.63	2.26	3.33	4.88	2.57	2.92	3.03	10.18	5.19

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.7069-105.3692-2-12-			0-C28944				-5	-5	-5	30	-20	-15	-5	-10	-15	3	45	
08-37.3517-105.3400-2-12-			0-C28945				-5	-5	-5	20	-20	-15	8	-10	-15	3	43	
08-37.3339-105.3431-2-15-			0-C28946				-5	-5	-5	20	-20	-15	-5	-10	-15	3	42	
08-37.3253-105.3094-2-12-			0-C28947				-5	-5	-5	42	-20	-15	-5	-10	-15	3	41	
08-37.3019-105.3506-2-15-			0-C28948				-5	-5	-5	18	-20	-15	6	-10	-15	3	49	
08-37.1264-105.2656-2-12-			0-C28949				-5	-5	-5	15	-20	-15	-5	-10	-15	4	48	
08-37.5644-105.6900-2-97-			0-C28960				-5	-5	-5	33	-20	-15	6	-10	-15	-1	86	
08-37.5628-105.7075-2-97-			0-C28961				-5	-5	-5	27	25	-15	-5	-10	-15	3	93	
08-37.5397-105.7183-2-97-			0-C28963				-5	-5	-5	26	-20	-15	19	-10	-15	3	49	
08-37.6631-105.6036-2-15-			0-C28968				-5	-5	-5	24	-20	15	6	-10	-15	3	35	
08-37.3758-105.6567-2-15-			0-C28990				-5	-5	-5	21	-20	-15	5	-10	-15	2	34	
08-37.3917-105.6625-2-15-			0-C28991				-5	-5	-5	26	-20	-15	7	-10	-15	2	36	
08-37.3831-105.5217-2-15-			0-C28992				-5	-5	-5	23	-20	-15	-5	-10	-15	2	30	
08-37.4986-105.5158-2-11-			0-C28995															
08-37.4981-105.5417-2-14-			0-C28996				-5	-5	-5	29	-20	-15	8	-10	-15	2	28	
08-37.4842-105.5183-2-15-			0-C28997				-5	-5	5	59	-20	-15	-5	-10	-15	2	17	
08-37.4739-105.5067-2-15-			0-C28998				-5	5	-5	35	-20	23	11	-10	-15	3	23	
08-37.3944-105.5200-2-12-			0-C28999				7	-5	-5	39	-20	19	-5	-10	-15	3	45	
08-37.4017-105.5139-2-12-			0-C29000				-5	-5	-5	22	-20	-15	7	-10	-15	3	37	
08-37.3786-105.6044-2-15-			0-C29001				-5	-5	-5	30	-20	-15	-5	-10	-15	2	23	
08-37.4575-105.6186-2-15-			0-C29003				-5	-5	-5	13	-20	18	11	-10	-15	3	40	
08-37.4886-105.6017-2-15-			0-C29004				-5	-5	-5	42	-20	28	12	-10	-15	2	28	
08-37.4250-105.4136-2-12-			0-C29005				-5	-5	-5	35	-20	-15	-5	-10	-15	3	31	
08-37.4250-105.4039-2-15-			0-C29006				5	-5	-5	36	-20	-15	-5	-10	15	2	20	
08-37.4339-105.3931-2-15-			0-C29007				-5	-5	-5	31	-20	-15	10	-10	-15	3	32	
08-37.4331-105.3769-2-15-			0-C29008				-5	-5	-5	21	-20	17	-5	-10	-15	3	35	
08-37.3919-105.4072-2-12-			0-C29010				-5	-5	-5	21	-20	17	10	-10	-15	3	29	
08-37.4472-105.4250-2-12-			0-C29011				-5	-5	-5	26	-20	21	5	-10	-15	3	46	
08-37.4881-105.4064-2-15-			0-C29012				-5	7	-5	35	-20	-15	11	-10	-15	3	23	
08-37.4778-105.4275-2-15-			0-C29013				-5	-5	-5	23	-20	-15	8	-10	-15	3	31	
08-37.4781-105.4297-2-15-			0-C29014				-5	5	-5	23	-20	19	5	-10	18	2	50	
08-37.4778-105.4317-2-15-			0-C29015				-5	-5	-5	38	-20	-15	9	-10	-15	4	39	
08-37.4392-105.4556-2-15-			0-C29016				-5	-5	-5	29	-20	-15	-5	13	-15	2	32	
08-37.4678-105.4633-2-15-			0-C29017				-5	-5	-5	25	-20	-15	7	-10	-15	3	39	
08-37.4772-105.4950-2-15-			0-C29018				-5	-5	-5	46	-20	-15	8	-10	-15	4	39	
08-37.5894-105.5650-2-15-			0-C29020				-5	-5	-5	32	-20	-15	10	-10	-15	1	30	
08-37.6039-105.7294-2-13-			0-C29021				-5	-5	-5	19	-20	-15	5	-10	-15	3	87	
08-37.6183-105.5492-2-12-			0-C29023				-5	-5	-5	79	-20	-15	10	-10	-15	3	43	
08-37.6067-105.5842-2-11-			0-C29024				6	-5	-5	27	-20	-15	18	-10	-15	2	33	
08-37.5511-105.5975-2-97-			0-C29025				-5	-5	-5	22	-20	-15	-5	-10	-15	3	26	
08-37.5278-105.5739-2-15-			0-C29026				-5	-5	-5	29	-20	-15	8	-10	-15	3	29	
08-37.5158-105.5653-2-97-			0-C29027				-5	-5	-5	42	-20	37	7	-10	-15	2	33	
08-37.5053-105.5422-2-15-			0-C29028				-5	-5	-5	90	-20	19	6	-10	-15	2	15	
08-37.5881-105.6103-2-15-			0-C29029				-5	-5	-5	37	-20	-15	9	-10	-15	3	32	
08-37.5639-105.5764-2-99-			0-C29031				-5	-5	-5	31	-20	-15	6	-10	-15	2	23	
08-37.6983-105.5414-2-15-			0-C29032				-5	-5	-5	39	-20	-15	16	-10	-15	2	27	
08-37.6336-105.5986-2-15-			0-C29034				-5	-5	-5	22	-20	-15	6	-10	-15	3	29	
08-37.6511-105.5825-2-15-			0-C29035				-5	-5	-5	61	-20	28	12	-10	-15	2	25	
08-37.6522-105.5653-2-15-			0-C29036				-5	-5	-5	38	-20	-15	8	-10	-15	3	38	
08-37.6400-105.5461-2-12-			0-C29037				-5	-5	-5	68	-20	-15	11	-10	-15	2	39	
08-37.6461-105.5464-2-12-			0-C29038				-5	-5	-5	26	-20	-15	8	-10	-15	3	28	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	As	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.7069-105.3692-2-12-			0-C28944			74580	-0.10		705	22370	91	133	15.9	52	2.7	7	2.3	46270	11.2	23630	41	0.6
08-37.3517-105.3400-2-12-			0-C28945			64250	-0.10		722	18690	90	-94	13.5	44	3.2	3	2.3	35160	12.6	22770	48	0.4
08-37.3339-105.3431-2-15-			0-C28946			65840	-0.09		731	19520	61	-89	12.1	34	2.8	5	1.9	35510	10.3	24310	42	0.4
08-37.3253-105.3094-2-12-			0-C28947			67500	-0.15		1029	21590	63	-129	18.9	64	-3.0	5	2.0	43640	5.8	16110	50	-0.2
08-37.3019-105.3506-2-15-			0-C28948			69710	-0.08		913	25540	84	-112	12.3	52	2.3	5	2.1	34360	13.1	25400	40	0.5
08-37.1264-105.2656-2-12-			0-C28949			71220	-0.13		592	13470	160	-103	11.6	41	4.5	19	3.2	43970	53.5	23310	111	2.3
08-37.5644-105.6900-2-97-			0-C28950			70180	-0.11		726	30460	52	3773	12.0	22	3.6	4	1.6	35030	6.1	27460	41	0.4
08-37.5628-105.7075-2-97-			0-C28951			58930	-0.10		536	32070	61	22220	15.9	17	5.3	3	1.5	39250	5.0	32860	37	0.2
08-37.5397-105.7183-2-97-			0-C28953			81360	-0.09		909	25930	87	-117	10.6	17	3.2	5	2.3	31460	9.1	27610	41	0.4
08-37.6631-105.6036-2-15-			0-C28958			69620	-0.11		551	24660	117	-102	29.4	84	-2.4	4	3.0	104000	17.2	16520	63	0.5
08-37.3758-105.6567-2-15-			0-C28990			64690	-0.11		642	21110	62	-102	20.7	49	3.0	4	1.9	77740	14.4	20520	39	0.5
08-37.3917-105.6625-2-15-			0-C28991			58330	-0.09		672	18490	70	-96	29.1	62	-2.1	4	2.0	103700	17.8	17660	46	0.4
08-37.3831-105.5217-2-15-			0-C28992			69820	-0.09		748	22660	99	-116	19.2	50	-1.9	5	2.2	67650	16.7	15310	39	0.5
08-37.4986-105.5158-2-11-			0-C28995																			
08-37.4981-105.5417-2-14-			0-C28996			75280	-0.12		591	27550	63	-102	15.1	34	-2.4	3	2.1	48210	10.6	24640	45	0.3
08-37.4842-105.5183-2-15-			0-C28997			69030	-0.12		377	35310	57	178	24.9	57	-2.7	4	2.0	91940	9.9	9777	35	0.3
08-37.4739-105.5067-2-15-			0-C28998			70600	-0.09		699	19180	88	-101	15.1	43	-1.9	7	2.0	46350	10.7	22750	53	0.5
08-37.3944-105.5200-2-12-			0-C28999			68940	-0.10		710	44520	114	-117	14.8	54	-2.1	6	2.4	36150	10.8	18390	46	0.6
08-37.4017-105.5139-2-12-			0-C29000			72610	-0.12		648	23550	99	-107	17.2	42	-2.6	5	2.7	44890	17.8	21910	53	0.6
08-37.3786-105.6044-2-15-			0-C29001			70640	-0.10		884	25970	52	-98	8.5	29	2.2	4	1.9	25640	4.6	24650	40	0.3
08-37.4575-105.6186-2-15-			0-C29003			67270	-0.09		690	23740	61	-97	19.3	54	-2.0	5	2.1	68480	16.4	19500	52	0.5
08-37.4886-105.6017-2-15-			0-C29004			70470	-0.08		698	19680	74	-111	16.6	42	2.3	3	2.0	59110	15.7	18340	33	0.4
08-37.4250-105.4136-2-12-			0-C29005			67520	-0.13		586	22480	104	-127	17.5	58	-2.8	5	3.0	59440	18.9	21320	57	0.8
08-37.4250-105.4039-2-15-			0-C29006			50630	-0.12		495	16250	81	-101	35.8	103	-2.5	5	2.6	145400	40.9	18250	55	0.8
08-37.4339-105.3931-2-15-			0-C29007			63190	-0.09		760	22390	57	-100	10.9	30	-1.8	6	1.7	37040	9.7	23990	40	0.6
08-37.4331-105.3769-2-15-			0-C29008			66960	-0.08		674	18710	88	113	13.6	45	-1.7	5	2.1	42250	15.7	19200	35	0.6
08-37.3919-105.4072-2-12-			0-C29010			64070	-0.11		661	20860	108	-102	18.0	54	-2.2	5	3.1	53890	26.8	24030	58	0.8
08-37.4472-105.4250-2-12-			0-C29011			71600	-0.13		659	21510	67	-113	13.0	49	3.1	6	2.1	37110	12.8	17720	50	0.7
08-37.4881-105.4064-2-15-			0-C29012			60510	-0.10		675	22360	113	-103	22.9	64	-2.0	7	2.6	65750	26.5	21610	63	0.8
08-37.4778-105.4275-2-15-			0-C29013			72190	-0.09		786	23570	105	-123	13.3	66	-2.0	5	2.3	44290	27.4	18550	46	0.8
08-37.4781-105.4297-2-15-			0-C29014			70980	-0.11		724	23830	106	-100	16.5	38	2.5	5	2.5	42420	9.7	22650	58	0.6
08-37.4778-105.4317-2-15-			0-C29015			69770	-0.11		854	18390	83	-96	15.1	47	-2.4	6	2.1	37540	7.2	23580	44	0.4
08-37.4392-105.4556-2-15-			0-C29016			61910	-0.09		801	21250	95	-105	19.5	50	-2.0	6	2.2	60080	19.0	18200	60	0.7
08-37.4678-105.4633-2-15-			0-C29017			65880	-0.08		843	22220	100	-119	12.8	43	-1.7	5	2.1	39680	11.8	25700	48	0.6
08-37.4772-105.4950-2-15-			0-C29018			73770	-0.12		656	18420	184	-105	15.9	31	4.3	10	3.1	48120	10.2	26500	100	1.0
08-37.5894-105.5650-2-15-			0-C29020			74400	-0.11		898	20740	47	-101	11.6	37	3.0	4	1.6	32700	8.2	18950	38	0.3
08-37.6039-105.7294-2-13-			0-C29021			56440	-0.10		482	57720	54	7049	12.6	-12	4.2	4	1.6	33860	6.0	30160	41	0.4
08-37.6183-105.5492-2-12-			0-C29023			78420	-0.12		600	30920	70	185	21.3	69	-2.6	4	2.1	46620	5.6	10550	36	0.4
08-37.6067-105.5842-2-11-			0-C29024			75870	-0.11		640	23900	90	118	19.0	62	3.6	4	2.4	50870	15.7	20320	48	0.5
08-37.5511-105.5975-2-97-			0-C29025			72350	-0.10		656	22150	62	-99	13.8	42	-2.0	4	1.8	42660	12.6	15720	38	0.3
08-37.5278-105.5739-2-15-			0-C29026			75190	-0.08		697	16840	67	-95	12.7	31	3.6	4	1.8	30750	9.9	20690	36	0.4
08-37.5158-105.5653-2-97-			0-C29027			78740	-0.09		715	20390	64	-116	12.6	44	2.8	3	1.8	31960	6.7	16230	30	0.3
08-37.5053-105.5422-2-15-			0-C29028			70920	-0.13		447	36760	64	141	34.1	44	-2.9	3	2.6	108600	7.4	11350	35	0.5
08-37.5881-105.6103-2-15-			0-C29029			73580	-0.10		774	23540	38	-104	14.0	39	-2.1	3	1.5	29200	4.7	17650	28	0.2
08-37.5639-105.5764-2-99-			0-C29031			70220	-0.10		596	24520	48	-112	12.5	33	-2.2	3	1.4	27290	7.0	15600	30	0.3
08-37.6983-105.5414-2-15-			0-C29032			73420	-0.10		556	23530	70	-140	16.2	46	2.8	4	1.7	29460	8.6	17680	36	0.3
08-37.6336-105.5986-2-15-			0-C29034			74270	-0.11		579	26230	73	-99	15.9	41	3.1	3	2.4	46820	9.0	19840	44	0.3
08-37.6511-105.5825-2-15-			0-C29035			74330	-0.12		565	29600	50	-103	25.1	59	-2.6	4	2.0	47250	6.2	15130	34	0.3
08-37.6522-105.5653-2-15-			0-C29036			73920	-0.09		685	27110	92	-99	18.7	67	-1.9	6	2.5	51250	10.8	19400	50	0.5
08-37.6400-105.5461-2-12-			0-C29037			82060	-0.11		825	25660	76	-121	14.0	86	2.9	5	2.3	35870	9.7	15560	37	0.6
08-37.6461-105.5464-2-12-			0-C29038			77430	-0.12		689	28740	82	-108	15.7	67	-2.5	4	2.3	42860	8.5	18150	46	0.3

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn		
08-37.7069-105.3692-2-12-	0-C28944	20790	767	19010	-38	-3	13.5	9.1	-350	-1	-1	10.6	6589	95	5.1	51	0.356						
08-37.3517-105.3400-2-12-	0-C28945	10240	603	20920	81	-3	9.1	8.3	-269	-1	-1	9.8	3250	68	4.6	70	0.285						
08-37.3339-105.3431-2-15-	0-C28946	12970	602	20090	-34	-2	9.3	4.9	542	-1	-1	8.1	4481	94	3.4	43	0.375						
08-37.3253-105.3094-2-12-	0-C28947	17080	1097	17310	-60	-4	9.1	4.7	-454	-3	-2	9.6	5031	91	-3.2	136	0.822						
08-37.3019-105.3506-2-15-	0-C28948	21340	653	21970	-32	-2	9.0	6.7	-326	-1	-1	9.6	4330	80	4.6	46	0.361						
08-37.1264-105.2656-2-12-	0-C28949	11020	582	21640	119	-3	13.4	16.7	-288	4	3	21.4	4205	55	21.6	99	1.443						
08-37.5644-105.6900-2-97-	0-C28960	32580	730	26870	89	-3	9.1	3.8	544	-1	-1	10.0	3797	75	2.8	165	0.297						
08-37.5628-105.7075-2-97-	0-C28961	37100	645	32550	77	-3	9.7	3.7	-384	-1	-1	9.6	3863	64	3.0	110	0.280						
08-37.5397-105.7183-2-97-	0-C28963	12570	490	24860	56	-2	7.8	6.4	406	-1	-1	12.3	4245	77	-1.7	41	0.250						
08-37.6631-105.6036-2-15-	0-C28968	12510	896	20370	-47	-3	14.6	8.2	636	2	-1	11.5	7343	205	4.9	187	0.317						
08-37.3758-105.6567-2-15-	0-C28990	12840	939	19060	62	-3	11.4	5.5	415	-1	-1	8.1	8395	195	4.9	130	0.383						
08-37.3917-105.6625-2-15-	0-C28991	10760	1076	17390	-41	-2	11.8	4.8	-317	-1	-1	9.2	10330	272	3.2	146	0.347						
08-37.3831-105.5217-2-15-	0-C28992	14980	895	21240	-36	-2	12.0	6.9	665	-1	1	8.2	6690	184	3.9	66	0.380						
08-37.4986-105.5158-2-11-	0-C28995																						
08-37.4981-105.5417-2-14-	0-C28996	14350	513	21170	75	-3	11.6	5.2	346	-1	-1	7.9	5043	111	3.6	-47	0.301						
08-37.4842-105.5183-2-15-	0-C28997	20870	1116	19380	-48	-3	18.9	4.4	-345	-2	1	3.8	7925	284	3.2	97	0.597						
08-37.4739-105.5067-2-15-	0-C28998	14870	906	20110	59	-2	11.4	7.6	-308	-1	-1	8.5	5882	114	3.8	136	0.455						
08-37.3944-105.5200-2-12-	0-C28999	30590	830	17600	-39	-3	11.4	8.7	710	-1	-2	11.4	4722	79	4.5	-47	0.522						
08-37.4017-105.5139-2-12-	0-C29000	15150	712	21160	-45	-3	13.6	7.6	-309	-1	-1	8.6	4627	94	5.1	-72	0.414						
08-37.3786-105.6044-2-15-	0-C29001	17920	502	22740	-37	-2	8.4	4.4	441	-1	-1	6.4	3172	60	-3.0	78	0.517						
08-37.4575-105.6186-2-15-	0-C29003	15120	906	19620	-38	-2	13.0	5.6	495	-1	1	9.6	7995	188	4.4	131	0.360						
08-37.4886-105.6017-2-15-	0-C29004	8274	826	20130	63	-2	10.3	6.1	-337	-1	-1	7.9	6904	157	3.5	151	0.375						
08-37.4250-105.4136-2-12-	0-C29005	12240	1544	18540	-51	-3	13.8	8.6	-434	-2	-2	12.1	5505	95	6.6	126	0.324						
08-37.4250-105.4039-2-15-	0-C29006	10490	1256	15630	-51	-3	13.2	6.5	-339	2	-1	13.4	12700	367	6.5	239	0.419						
08-37.4339-105.3931-2-15-	0-C29007	14720	690	23420	51	-2	9.2	5.2	-285	-1	-1	6.0	4938	96	4.7	81	0.585						
08-37.4331-105.3769-2-15-	0-C29008	16430	789	21470	-30	-2	9.9	6.7	-336	-1	-1	9.0	5736	112	3.8	51	0.377						
08-37.3919-105.4072-2-12-	0-C29010	14330	749	21170	-41	-3	12.0	8.2	-289	-1	-1	9.9	5312	118	5.8	138	0.425						
08-37.4472-105.4250-2-12-	0-C29011	15860	1094	19430	-46	-3	12.9	5.3	-374	-1	-1	7.9	5150	90	5.7	-58	0.577						
08-37.4881-105.4064-2-15-	0-C29012	15080	1094	18940	-37	-2	13.0	7.7	-325	-1	2	11.2	7446	178	7.9	90	0.444						
08-37.4778-105.4275-2-15-	0-C29013	13140	1029	20960	-34	-2	11.5	8.3	-393	-1	-1	8.5	6772	104	5.3	89	0.555						
08-37.4781-105.4297-2-15-	0-C29014	18460	711	19070	-42	-3	13.3	8.3	-294	-1	-1	10.3	3726	82	5.5	101	0.289						
08-37.4778-105.4317-2-15-	0-C29015	19950	791	16530	116	-3	11.8	6.2	627	-1	-1	9.1	4564	83	4.9	98	0.349						
08-37.4392-105.4556-2-15-	0-C29016	15330	1050	19760	61	-2	11.2	5.7	324	-1	-1	8.1	8050	160	5.0	127	0.488						
08-37.4678-105.4633-2-15-	0-C29017	11770	776	23500	67	-2	9.0	7.3	-347	-1	-1	10.2	4493	95	4.7	-43	0.325						
08-37.4772-105.4950-2-15-	0-C29018	9244	863	19290	84	-3	14.4	15.7	-319	-2	2	16.0	3597	78	9.0	147	0.211						
08-37.5894-105.5650-2-15-	0-C29020	11980	706	20130	-41	-3	8.5	3.5	495	-1	-1	7.1	4519	89	3.7	97	0.394						
08-37.6039-105.7294-2-13-	0-C29021	38090	911	29990	52	-3	8.3	5.2	737	-1	-1	9.0	2951	66	2.8	98	0.267						
08-37.6183-105.5492-2-12-	0-C29023	32330	993	15150	-44	-3	15.3	6.2	-442	-2	-1	7.4	3961	103	-2.9	-117	0.418						
08-37.6067-105.5842-2-11-	0-C29024	13420	714	21320	-41	-3	13.7	6.5	-289	-1	-1	10.0	4522	102	2.6	99	0.298						
08-37.5511-105.5975-2-97-	0-C29025	10440	747	22030	61	-2	9.8	4.5	530	-1	-1	8.5	5736	120	3.9	151	0.327						
08-37.5278-105.5739-2-15-	0-C29026	9695	647	20920	80	-2	7.5	4.2	515	-1	-1	7.8	4318	77	3.4	46	0.369						
08-37.5158-105.5653-2-97-	0-C29027	18850	749	19870	48	-2	8.6	5.9	-369	-1	-1	7.0	4276	75	3.4	99	0.373						
08-37.5053-105.5422-2-15-	0-C29028	24990	1049	18020	-52	-3	24.8	5.5	-322	-2	1	3.9	6910	281	-2.9	160	0.418						
08-37.5881-105.6103-2-15-	0-C29029	18840	743	21360	-37	-3	9.4	3.1	-315	-1	-1	5.1	3691	68	-2.0	-65	0.443						
08-37.5639-105.5764-2-99-	0-C29031	14060	817	19360	60	-3	8.3	2.8	-355	-2	-1	6.3	4277	72	-2.3	87	0.529						
08-37.6983-105.5414-2-15-	0-C29032	16000	1276	18920	-36	-2	8.3	4.3	-492	-2	-1	7.0	3398	73	-2.6	-72	0.697						
08-37.6336-105.5986-2-15-	0-C29034	12960	686	22030	57	-3	14.4	6.2	579	-1	-1	9.5	3617	97	5.2	92	0.271						
08-37.6511-105.5825-2-15-	0-C29035	28120	851	19130	-44	-3	17.5	3.8	-319	-2	-1	4.9	4952	116	3.4	-89	0.596						
08-37.6522-105.5653-2-15-	0-C29036	15420	804	21770	60	-2	13.2	6.8	519	-1	-1	7.9	4887	123	3.9	125	0.384						
08-37.6400-105.5461-2-12-	0-C29037	18500	660	19050	-38	-3	12.0	9.6	487	-2	-1	8.8	4719	93	-2.3	-46	1.157						
08-37.6461-105.5464-2-12-	0-C29038	17280	603	22110	-46	-3	13.0	7.9	477	-2	-1	8.5	3397	90	4.0	51	0.611						

[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

(2)

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W		Be	Li
08-37.3344-105.9417-2-14-						0-C29039	-5	-5	-5	41	-20	28	17	10	-15		2	23
08-37.4253-105.6142-2-15-						0-C29041	-5	-5	5	27	-20	22	8	-10	-15		2	13
08-37.4369-105.5775-2-15-						0-C29042	-5	-5	-5	35	-20	-15	10	-10	-15		3	30
08-37.3003-105.4306-2-15-						0-C29043	-5	-5	-5	33	-20	25	-5	-10	-15		3	42
08-37.2969-105.4378-2-15-						0-C29044	-5	-5	-5	20	-20	17	-5	-10	-15		2	19
08-37.2969-105.4794-2-96-						0-C29045	-5	-5	-5	45	-20	39	16	-10	-15		3	37
08-37.3411-105.4322-2-15-						0-C29046	5	-5	-5	34	-20	-15	12	-10	-15		2	21
08-37.3067-105.7372-2-11-						0-C29047	-5	-5	-5	12	-20	-15	38	-10	-15		2	25
08-37.3017-105.6503-2-97-						0-C29049	-5	-5	-5	19	-20	-15	-5	-10	21		2	20
08-37.3156-105.7072-2-11-						0-C29050	-5	-5	-5	17	-20	-15	12	-10	-15		2	42
08-37.5617-105.7647-2-99-						0-C29053	-5	-5	-5	12	-20	-15	13	-10	-15		3	23
08-37.5806-105.8578-2-15-						0-C29055	-5	-5	-5	18	-20	-15	10	-10	16		2	18
08-37.6758-105.5669-2-15-						0-C29058	-5	-5	-5	30	-20	-15	10	-10	-15		3	16
08-37.6836-105.5267-2-12-						0-C29059	-5	-5	-5	30	-20	-15	-5	-10	-15		2	23
08-37.7175-105.5008-2-12-						0-C29061	-5	-5	-5	44	20	-15	15	-10	-15		2	25
08-37.7347-105.5078-2-12-						0-C29062	-5	-5	-5	26	-20	-15	10	-10	-15		3	20
08-37.7339-105.5069-2-11-						0-C29063	-5	-5	-5	30	-20	-15	7	-10	19		2	21
08-37.7311-105.5317-2-15-						0-C29064	28	-5	-5	47	25	69	-5	-10	21		-1	8
08-37.7317-105.5144-2-15-						0-C29065	-5	-5	5	14	-20	-15	8	-10	-15		3	26
08-37.6478-105.7050-2-96-						0-C29068	-5	-5	-5	11	-20	-15	5	-10	-15		3	28
08-37.6292-105.7153-2-96-						0-C29069	-5	-5	-5	35	-20	-15	15	-10	-15		3	100
08-37.6631-105.6614-2-13-						0-C29072	-5	-5	-5	11	-20	-15	6	-10	-15		2	19
08-37.7222-105.7250-2-13-						0-C29074	-5	-5	-5	10	-20	-15	7	-10	21		2	20
08-37.7344-105.6650-2-12-						0-C29077	-5	-5	-5	-10	-20	-15	7	-10	-15		2	24
08-37.7164-105.6336-2-12-						0-C29079	-5	-5	-5	12	-20	-15	-5	-10	-15		2	22
08-37.6978-105.6719-2-14-						0-C29083	-5	-5	-5	26	-20	-15	10	-10	18		2	22
08-37.7153-105.7081-2-12-						0-C29084	-5	-5	-5	-10	-20	-15	-5	-10	-15		3	25
08-37.6756-105.7322-2-14-						0-C29085	-5	-5	-5	17	-20	-15	6	-10	-15		3	27
08-37.6825-105.7286-2-14-						0-C29086	-5	-5	-5	18	-20	-15	5	-10	-15		3	21
08-37.6383-105.7814-2-96-						0-C29089	-5	-5	-5	-10	-20	-15	37	-10	-15		2	23
08-37.4350-105.3511-2-15-						0-C29110	-5	-5	-5	35	-20	-15	19	-10	-15		3	27
08-37.4392-105.3464-2-15-						0-C29111	-5	-5	-5	35	-20	-15	8	-10	-15		3	30
08-37.4414-105.3461-2-15-						0-C29112	-5	5	-5	32	-20	-15	10	-10	-15		3	26
08-37.4614-105.3367-2-12-						0-C29113	-5	-5	-5	21	-20	-15	7	-10	-15		3	37
08-37.4722-105.3367-2-96-						0-C29114	-5	-5	-5	41	-20	-15	16	-10	-15		3	34
08-37.4586-105.3267-2-15-						0-C29115	6	-5	-5	18	-20	-15	10	-10	-15		3	11
08-37.4592-105.3128-2-15-						0-C29116	-5	-5	-5	31	-20	-15	-5	-10	-15		2	15
08-37.3803-105.2669-2-15-						0-C29117	-5	6	-5	49	-20	27	-5	-10	-15		3	44
08-37.3756-105.3094-2-12-						0-C29123	-5	-5	-5	24	-20	24	-5	10	25		3	25
08-37.0428-105.9628-2-15-						0-C29125	-5	-5	-5	39	-20	34	10	-10	-15		3	33
08-37.8833-105.8975-2-12-						0-C29140	-5	-5	-5	-10	-20	-15	-5	-10	15		3	28
08-37.9161-105.9097-2-13-						0-C29142	-5	-5	-5	-10	-20	-15	-5	-10	-15		3	36
08-37.9036-105.9458-2-12-						0-C29144	-5	-5	-5	14	-20	-15	8	-10	-15		2	21
08-37.9075-105.9456-2-12-						0-C29145	-5	-5	-5	16	-20	18	9	-10	-15		3	23
08-37.9053-105.9664-2-13-						0-C29146	-5	-5	-5	-10	-20	-15	5	-10	-15		3	22
08-37.7675-105.1031-2-15-						0-C29167	23	-5	-5	-10	-20	30	-5	25	43		1	8
08-37.7508-105.1133-2-15-						0-C29168	-5	-5	-5	40	-20	-15	11	12	-15		3	23
08-37.7853-105.1483-2-12-						0-C29169	24	-5	-5	74	67	-15	-5	-10	58		-1	3
08-37.7864-105.1611-2-15-						0-C29170	7	-5	-5	44	-20	56	-5	15	40		2	24
08-37.7831-105.1775-2-12-						0-C29171	-5	-5	-5	34	-20	29	12	-10	19		3	38
08-37.7783-105.1783-2-12-						0-C29172	-5	-5	-5	32	-20	16	-5	-10	-15		3	36

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.3344-105.9417-2-14-						0-C29039	69070	-0.13	631	23860	50	-95	21.8	51	2.6	4	1.8	71720	7.4	20210	34	0.4
08-37.4253-105.6142-2-15-						0-C29041	68770	-0.09	712	20950	62	-97	17.7	45	-1.9	4	2.0	61560	16.4	22500	40	0.4
08-37.4369-105.5775-2-15-						0-C29042	72630	-0.10	843	23660	89	-118	17.6	52	-1.9	4	2.2	60780	14.4	19920	34	0.5
08-37.3003-105.4306-2-15-						0-C29043	72200	-0.11	707	17300	103	-100	18.3	55	3.4	5	2.7	51430	13.7	23280	52	0.4
08-37.2969-105.4378-2-15-						0-C29044	66110	-0.11	721	55390	52	-95	14.8	32	-2.2	4	1.8	46140	11.1	18720	38	0.4
08-37.2969-105.4794-2-96-						0-C29045	82690	-0.13	604	28930	76	248	18.7	49	6.0	6	1.9	41410	5.1	23280	45	0.4
08-37.3411-105.4322-2-15-						0-C29046	67170	-0.09	601	20470	106	-115	21.4	54	2.5	5	2.3	69310	17.0	17900	44	0.7
08-37.3067-105.7372-2-11-						0-C29047	73320	-0.11	632	23440	84	140	17.9	31	5.1	3	2.4	51110	14.7	19210	46	0.5
08-37.3017-105.6503-2-97-						0-C29049	69880	-0.10	593	25220	51	-99	20.2	43	-2.2	4	1.8	62040	10.1	18320	39	0.4
08-37.3156-105.7072-2-11-						0-C29050	59960	-0.09	621	63150	48	385	13.3	25	-1.9	4	1.8	39830	10.2	21970	33	0.4
08-37.5617-105.7647-2-99-						0-C29053	76150	-0.08	733	72440	75	-122	8.1	18	-1.6	4	2.0	22730	9.3	21520	36	0.3
08-37.5806-105.6578-2-15-						0-C29055	78020	-0.10	730	24320	98	-105	18.6	34	3.6	4	2.6	61210	15.2	22530	49	0.5
08-37.6758-105.5669-2-15-						0-C29058	79350	-0.10	881	22010	60	-101	12.1	30	3.4	4	2.1	32210	7.8	24270	43	0.3
08-37.6836-105.5267-2-12-						0-C29059	81750	-0.09	1020	25980	77	-103	11.9	42	-1.8	4	2.2	33830	5.8	20880	43	0.3
08-37.7175-105.5008-2-12-						0-C29061	78920	-0.09	795	22900	111	200	15.4	44	2.5	5	2.3	47000	12.6	21430	49	0.5
08-37.7347-105.5078-2-12-						0-C29062	80760	-0.12	805	28350	113	-107	13.7	37	-2.3	5	3.4	45340	13.8	22390	63	0.5
08-37.7339-105.5069-2-11-						0-C29063	76130	-0.12	795	25960	92	-109	17.4	42	-2.4	6	3.0	63280	22.4	22750	56	0.6
08-37.7311-105.5317-2-15-						0-C29064	25640	-0.12	-197	14190	126	-143	87.7	159	-2.6	4	2.8	341100	33.5	-6126	63	0.7
08-37.7317-105.5144-2-15-						0-C29065	78900	-0.08	899	26340	109	-114	14.9	35	2.2	5	2.4	48760	11.3	22970	44	0.5
08-37.6478-105.7050-2-96-						0-C29068	79050	-0.09	752	39760	74	726	9.4	20	-1.8	3	2.4	24820	9.6	27690	39	0.3
08-37.6292-105.7153-2-96-						0-C29069	56920	-0.12	515	44540	45	5702	14.9	38	4.9	4	1.6	33940	3.1	31030	41	-0.2
08-37.6631-105.6614-2-13-						0-C29072	59400	-0.09	647	70180	49	-111	6.9	-10	2.0	3	1.5	18570	4.7	22250	27	0.4
08-37.7222-105.7250-2-13-						0-C29074	75170	-0.09	771	33120	114	-122	15.6	41	-1.8	5	2.6	52930	29.5	23700	41	0.7
08-37.7344-105.6650-2-12-						0-C29077	82330	-0.10	831	29720	103	170	14.1	24	-2.1	4	2.9	38060	18.0	20790	51	0.5
08-37.7164-105.6336-2-12-						0-C29079	80420	-0.10	831	30980	113	104	14.3	35	-2.1	7	3.0	43100	16.9	18240	64	0.5
08-37.6978-105.6719-2-14-						0-C29083	80390	-0.09	840	30910	67	-108	13.9	25	2.2	4	2.0	41690	10.3	26010	38	0.3
08-37.7153-105.7081-2-12-						0-C29084	86450	-0.07	998	25650	59	200	4.8	19	2.2	3	1.8	15720	4.3	32840	38	0.3
08-37.6756-105.7322-2-14-						0-C29085	67890	-0.11	714	51870	69	644	9.6	22	-2.2	3	2.1	29610	9.0	23130	43	0.3
08-37.6825-105.7286-2-14-						0-C29086	78970	-0.11	838	29750	79	192	14.3	30	-2.2	5	2.2	46760	10.3	21080	42	0.4
08-37.6383-105.7814-2-96-						0-C29089	72610	-0.08	777	24460	62	-101	12.2	30	2.1	5	2.0	38770	11.2	26420	38	0.3
08-37.4350-105.3511-2-15-						0-C29110	69560	-0.09	800	18820	84	-107	13.6	38	-1.8	5	2.1	34940	9.7	26940	36	0.6
08-37.4392-105.3464-2-15-						0-C29111	68570	-0.13	783	34540	89	-104	17.5	46	-2.7	5	2.3	40630	8.4	21950	51	0.6
08-37.4414-105.3461-2-15-						0-C29112	66920	-0.10	778	27850	54	131	12.6	31	3.5	5	1.8	32780	8.5	22540	40	0.5
08-37.4614-105.3367-2-12-						0-C29113	68510	-0.10	871	24940	67	-108	13.7	42	2.8	6	2.1	39520	13.8	22380	36	0.5
08-37.4722-105.3367-2-96-						0-C29114	74970	-0.08	765	23030	86	-115	14.0	35	2.0	4	1.8	34980	9.3	23570	38	0.5
08-37.4586-105.3267-2-15-						0-C29115	55730	-0.12	466	21840	104	-102	26.7	76	-2.5	6	3.2	103000	35.8	22920	48	1.1
08-37.4592-105.3128-2-15-						0-C29116	53000	-0.12	590	21770	99	180	22.7	88	-2.4	8	2.8	98680	44.3	18370	57	1.2
08-37.3803-105.2669-2-15-						0-C29117	67000	-0.11	634	26690	111	-105	27.9	71	3.9	7	2.5	61530	13.2	20640	58	0.7
08-37.3756-105.2094-2-12-						0-C29123	63980	-0.11	770	27680	157	-128	20.6	81	-2.2	9	3.6	73820	51.2	20900	67	1.2
08-37.0428-105.5628-2-15-						0-C29125	72620	-0.13	569	20070	76	-91	24.2	80	5.5	4	2.5	57350	10.7	20850	47	0.5
08-37.8833-105.8975-2-12-						0-C29140	68870	-0.10	878	58840	66	198	8.8	20	2.3	4	1.9	20590	12.0	24120	40	0.4
08-37.9161-105.5097-2-13-						0-C29142	79060	-0.08	1052	35820	62	-108	5.4	-10	-1.6	4	2.0	15780	8.1	29860	44	0.2
08-37.9036-105.5458-2-12-						0-C29144	73950	-0.08	965	56360	74	-113	5.0	22	2.4	4	2.1	14970	7.8	27110	39	0.3
08-37.9075-105.9456-2-12-						0-C29145	78780	-0.10	812	35490	87	142	6.5	29	4.1	4	2.6	16400	11.3	26030	61	0.4
08-37.9053-105.9664-2-13-						0-C29146	77150	-0.09	905	28730	69	132	4.1	22	2.4	4	2.1	18480	9.9	27890	51	0.4
08-37.7675-105.1031-2-15-						0-C29167	34410	-0.12	410	15290	240	-131	30.0	357	-2.7	9	3.4	275600	43.7	11450	137	1.2
08-37.7508-105.1133-2-15-						0-C29168	70980	-0.09	1020	25370	91	137	12.5	39	-1.8	6	2.1	33930	7.6	23280	41	0.5
08-37.7853-105.1483-2-12-						0-C29169	19170	-0.16	-201	9500	398	-148	45.1	326	-3.5	6	4.7	364500	75.9	-6461	174	2.6
08-37.7864-105.1611-2-15-						0-C29170	62130	-0.16	815	24530	164	-98	26.3	145	-3.3	11	2.5	151000	25.7	14360	97	1.1
08-37.7831-105.1775-2-12-						0-C29171	78300	-0.11	963	27010	92	-97	14.5	55	2.4	5	2.1	30780	7.0	25390	42	0.5
08-37.7783-105.1783-2-12-						0-C29172	78680	-0.14	760	30940	91	-124	18.5	58	-2.8	6	2.5	43600	9.9	23440	52	0.6

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
08-37.3344-105.9417-2-14-	0	-C29039	15660	741	14300	-51	-3	12.1	3.4	803	-2	-1	7.5	9620	238	-2.5	-114	0.807				
08-37.4253-105.6142-2-15-	0	-C29041	11980	783	21740	72	-2	11.4	5.1	482	-1	-1	8.7	6672	166	4.9	106	0.357				
08-37.4369-105.5775-2-15-	0	-C29042	14630	865	20510	-35	-2	11.4	6.6	590	-1	-1	7.7	6755	164	3.0	86	0.374				
08-37.3003-105.4306-2-15-	0	-C29043	13810	752	17350	69	-3	12.5	6.8	-303	-1	-1	13.8	4059	100	5.0	-57	0.245				
08-37.2969-105.4378-2-15-	0	-C29044	13320	633	18620	-42	-3	9.3	4.4	467	-1	-1	7.6	6261	139	3.5	167	0.350				
08-37.2969-105.4794-2-96-	0	-C29045	27870	1046	8548	102	-3	12.6	5.9	-385	-2	-2	11.7	4980	76	-3.2	-170	0.260				
08-37.3411-105.4322-2-15-	0	-C29046	15250	1006	19120	78	-2	12.4	9.4	-371	-1	-1	10.7	7583	197	5.2	92	0.411				
08-37.3067-105.7372-2-11-	0	-C29047	13850	904	20340	73	-3	12.2	7.4	518	-1	2	10.3	5874	108	4.3	170	0.341				
08-37.3017-105.6503-2-97-	0	-C29049	15080	745	21330	67	-3	11.3	4.5	439	-1	-1	7.3	6893	174	2.8	142	0.337				
08-37.3156-105.7072-2-11-	0	-C29050	25050	703	22400	-34	-2	7.9	3.4	940	-2	-1	6.3	5152	116	2.3	107	0.779				
08-37.5617-105.7647-2-99-	0	-C29053	10550	710	23050	-29	-2	6.3	6.1	604	-1	-1	10.0	3589	52	3.6	43	0.250				
08-37.5806-105.8578-2-15-	0	-C29055	12120	679	23470	100	-3	9.9	7.0	-284	-1	-1	11.6	4935	134	-2.1	-111	0.268				
08-37.6758-105.5669-2-15-	0	-C29058	13000	649	23410	75	-2	9.3	4.3	605	-1	-1	8.4	3985	80	2.6	84	0.354				
08-37.6836-105.5267-2-12-	0	-C29059	12860	534	27240	54	-2	10.2	5.6	566	-1	-1	7.7	3682	83	3.2	-40	1.027				
08-37.7175-105.5008-2-12-	0	-C29061	12240	754	22970	-34	-2	10.3	7.9	484	2	-1	10.2	5988	123	4.4	80	0.351				
08-37.7347-105.5078-2-12-	0	-C29062	11100	568	26220	77	-3	13.2	9.5	-286	2	-1	11.8	5092	101	4.1	70	0.332				
08-37.7339-105.5069-2-11-	0	-C29063	14190	775	23830	-44	-3	11.6	9.0	416	-1	1	10.0	8636	186	4.3	114	0.527				
08-37.7311-105.5317-2-15-	0	-C29064	-6157	2054	8290	-56	-3	20.6	10.8	-446	4	1	9.7	19340	754	7.1	445	0.433				
08-37.7317-105.5144-2-15-	0	-C29065	11920	691	24240	57	-2	9.5	8.2	618	-1	-1	10.1	6021	146	4.1	95	0.334				
08-37.6478-105.7050-2-96-	0	-C29068	13420	399	26740	82	-2	7.6	5.9	457	-1	-1	9.7	3223	54	3.9	-18	0.313				
08-37.6292-105.7153-2-96-	0	-C29069	39170	860	33300	-46	-3	9.7	3.7	775	-2	-1	7.7	4324	87	-2.6	95	0.335				
08-37.6631-105.6614-2-13-	0	-C29072	30580	916	18730	54	-2	5.5	3.7	821	-1	-1	7.1	2938	39	-1.6	63	0.297				
08-37.7222-105.7250-2-13-	0	-C29074	15250	776	24900	-32	-2	9.9	9.6	570	-1	-1	9.9	7253	159	4.5	111	0.393				
08-37.7344-105.6650-2-12-	0	-C29077	17480	528	26770	78	-3	12.4	8.1	543	-1	-1	8.9	3848	100	4.6	94	0.344				
08-37.7164-105.6336-2-12-	0	-C29079	15890	624	26340	-35	-3	12.1	8.7	861	-1	-1	9.7	6796	117	5.7	127	0.349				
08-37.6978-105.6719-2-14-	0	-C29083	13030	707	26190	-34	-2	8.5	5.2	711	-1	-1	7.3	5063	118	2.8	123	0.374				
08-37.7153-105.7081-2-12-	0	-C29084	6546	379	27910	62	-2	5.3	5.2	727	-1	-1	8.5	2460	48	2.2	51	0.338				
08-37.6756-105.7322-2-14-	0	-C29085	22530	524	24250	-39	-3	6.9	5.3	451	-2	-1	7.6	3229	69	-2.2		0.351				
08-37.6825-105.7286-2-14-	0	-C29086	16030	828	25630	-40	-3	9.8	5.8	745	-1	-1	7.0	5936	132	3.6	93	0.394				
08-37.6383-105.7814-2-96-	0	-C29089	14790	670	22530	63	-2	7.7	5.2	510	-1	-1	10.4	6180	105	3.5	-70	0.324				
08-37.4350-105.3511-2-15-	0	-C29110	17590	691	18710	56	-2	10.2	7.0	-328	1	1	8.5	4498	86	4.0	70	0.381				
08-37.4392-105.3464-2-15-	0	-C29111	20060	726	16220	-52	-3	14.4	5.9	-325	-1	-1	11.8	3719	101	6.8	-67	0.262				
08-37.4414-105.3461-2-15-	0	-C29112	18560	629	19710	62	-3	9.5	5.0	313	-1	-1	7.0	4137	92	3.7	200	0.423				
08-37.4614-105.3367-2-12-	0	-C29113	16160	904	22240	76	-2	10.9	6.4	-328	2	-1	7.1	4546	102	4.5	132	0.506				
08-37.4722-105.3367-2-96-	0	-C29114	16310	766	22000	44	-2	9.5	6.8	-346	-1	-1	10.0	4406	92	3.6	60	0.272				
08-37.4586-105.3267-2-15-	0	-C29115	13690	916	19550	67	-3	14.1	9.4	-308	-1	2	13.1	9622	238	7.3	126	0.394				
08-37.4592-105.3128-2-15-	0	-C29116	12180	1076	15170	-46	-3	12.5	8.0	-325	-1	-1	12.2	10150	261	8.6	150	0.571				
08-37.3803-105.2669-2-15-	0	-C29117	27720	1083	18670	48	-3	19.8	8.9	-336	-1	-1	10.5	5917	155	5.9	159	0.382				
08-37.3756-105.3094-2-12-	0	-C29123	19920	1106	20680	-37	-3	15.5	13.3	620	-1	2	14.9	8780	189	8.8	-45	0.582				
08-37.0428-105.9628-2-15-	0	-C29125	21530	861	12180	85	-3	14.5	7.7	-311	-1	-1	12.0	5616	126	-3.1	131	0.218				
08-37.8833-105.8975-2-12-	0	-C29140	20350	472	21800	-33	-2	7.6	3.8	825	-2	-1	6.7	3771	56	3.3	-44	0.412				
08-37.9161-105.9097-2-13-	0	-C29142	17810	399	29150	70	-2	6.1	4.6	663	-1	-1	7.2	2656	30	2.9	-39	0.368				
08-37.9036-105.9458-2-12-	0	-C29144	11790	356	23240	45	-2	5.4	6.8	586	-1	-1	10.3	2655	33	2.0	-38	0.346				
08-37.9075-105.9456-2-12-	0	-C29145	14780	309	23820	83	-2	7.5	7.7	593	-1	-1	11.9	2743	37	3.5	-50	0.270				
08-37.9053-105.9664-2-13-	0	-C29146	11040	321	25280	87	-2	7.0	5.2	509	-1	-1	9.8	3221	38	2.9	-46	0.324				
08-37.7675-105.1031-2-15-	0	-C29167	-6261	2252	8683	-54	-3	20.1	17.3	-544	3	3	39.7	23390	604	7.9	-64	0.220				
08-37.7508-105.1133-2-15-	0	-C29168	18520	718	16730	77	-2	9.7	7.4	-345	-1	-1	7.6	3563	75	4.4	57	0.405				
08-37.7853-105.1483-2-12-	0	-C29169	-6318	2245	5303	-72	-4	31.4	23.9	-462	6	3	50.9	23010	467	18.1	-81	0.218				
08-37.7864-105.1611-2-15-	0	-C29170	19270	1700	6285	-64	-4	19.8	12.5	-429	-2	-2	26.5	13770	369	9.5	181	0.263				
08-37.7831-105.1775-2-12-	0	-C29171	21620	700	15730	-35	-3	10.3	8.1	-316	-1	-1	8.9	4135	81	4.7	-107	0.337				
08-37.7783-105.1783-2-12-	0	-C29172	20380	1038	17010	74	-4	14.0	7.7	-460	-2	-2	9.7	4673	80	5.3	-145	0.348				

[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.7678-105.1492-2-15-						0-C29173	-5	-5	-5	30	-20	-15	6	-10	-15	3	28	
08-37.7692-105.2083-2-12-						0-C29174	-5	-5	-5	35	-20	-15	10	-10	-15	2	41	
08-37.7681-105.2431-2-11-						0-C29176	-5	5	-5	27	-20	-15	-5	-10	-15	-1	34	
08-37.8058-105.2228-2-15-						0-C29177	-5	-5	-5	31	-20	-15	9	-10	-15	3	32	
08-37.8008-105.0931-2-12-						0-C29178	-5	-5	-5	37	-20	28	6	-10	-15	3	32	
08-37.8003-105.0856-2-15-						0-C29179	7	-5	-5	39	-20	28	-5	-10	-15	2	21	
08-37.7736-105.0753-2-97-						0-C29180	-5	-5	-5	44	-20	-15	13	-10	-15	2	46	
08-37.7961-105.0478-2-15-						0-C29182	-5	-5	-5	19	-20	-15	-5	-10	-15	3	17	
08-37.8339-105.1136-2-12-						0-C29183	-5	-5	-5	29	-20	18	5	-10	-15	2	29	
08-37.8339-105.1153-2-12-						0-C29184	-5	-5	-5	27	-20	23	5	-10	19	3	35	
08-37.8283-105.1450-2-12-						0-C29185	-5	-5	-5	30	-20	28	-5	-10	-15	2	37	
08-37.8556-105.1650-2-12-						0-C29186	-5	-5	-5	31	-20	27	17	-10	-15	2	27	
08-37.8703-105.1289-2-15-						0-C29187	-5	-5	-5	35	-20	29	7	-10	-15	2	28	
08-37.8697-105.1242-2-12-						0-C29188	-5	5	-5	21	-20	-15	7	-10	-15	2	30	
08-37.8522-105.1031-2-15-						0-C29189	-5	-5	-5	28	-20	23	12	-10	-15	2	27	
08-37.8253-105.0931-2-13-						0-C29190	-5	-5	-5	35	-20	20	9	-10	-15	3	38	
08-37.4006-105.0764-2-12-						0-C29191	-5	-5	-5	33	-20	24	20	-10	-15	3	29	
08-37.4008-105.0747-2-11-						0-C29192	-5	-5	-5	30	-20	41	18	-10	-15	3	36	
08-37.3811-105.1036-2-12-						0-C29193	-5	-5	-5	27	-20	17	9	-10	-15	3	29	
08-37.4714-105.0797-2-12-						0-C29195	-5	-5	-5	33	-20	25	8	-10	-15	3	37	
08-37.4594-105.1086-2-12-						0-C29196	-5	-5	-5	51	-20	22	18	-10	-15	4	20	
08-37.4928-105.0803-2-15-						0-C29199	-5	-5	-5	21	-20	23	14	-10	-15	3	25	
08-37.9497-105.7186-2-12-						0-C29200	-5	-5	-5	18	-20	-15	12	-10	-15	3	17	
08-37.9619-105.6797-2-15-						0-C29201	-5	-5	-5	12	-20	-15	10	-10	-15	3	16	
08-37.9328-105.7272-2-15-						0-C29202	-5	-5	-5	24	-20	-15	-5	-10	-15	2	16	
08-37.9494-105.6750-2-15-						0-C29203	-5	-5	-5	28	-20	-15	8	-10	-15	3	18	
08-37.9578-105.7003-2-15-						0-C29204	-5	-5	-5	14	-20	-15	13	-10	-15	2	15	
08-37.9758-105.6597-2-12-						0-C29205	-5	-5	-5	19	-20	-15	19	-10	-15	3	22	
08-37.9892-105.7458-2-14-						0-C29206	-5	-5	-5	22	-20	-15	14	-10	-15	3	16	
08-37.5392-105.8578-2-15-						0-C29207	-5	-5	-5	25	-20	-15	148	-10	-15	2	18	
08-37.5025-105.7561-2-11-						0-C29209	-5	5	-5	11	-20	18	8	-10	-15	2	17	
08-37.9103-105.6494-2-97-						0-C29210	-5	-5	-5	16	-20	18	8	-10	-15	2	17	
08-37.5297-105.0911-2-12-						0-C29212	-5	-5	-5	38	-20	26	16	-10	-15	3	34	
08-37.5267-105.1186-2-12-						0-C29213	-5	-5	-5	27	-20	-15	9	-10	-15	4	27	
08-37.5292-105.1442-2-12-						0-C29214	-5	-5	-5	37	-20	-15	20	-10	-15	3	18	
08-37.5275-105.1456-2-12-						0-C29215	-5	-5	-5	37	23	26	12	-10	-15	3	46	
08-37.5686-105.0169-2-12-						0-C29218	-5	-5	-5	22	-20	-15	18	-10	-15	2	22	
08-37.5775-105.0450-2-15-						0-C29220	-5	-5	-5	31	-20	-15	8	-10	-15	2	26	
08-37.6089-105.0542-2-15-						0-C29221	-5	-5	-5	46	-20	-15	28	-10	-15	2	16	
08-37.6078-105.0389-2-15-						0-C29222	-5	-5	-5	23	-20	-15	15	-10	-15	2	11	
08-37.5917-105.0278-2-15-						0-C29224	-5	5	-5	48	-20	23	13	-10	-15	3	27	
08-37.5978-105.0739-2-11-						0-C29228	-5	-5	-5	28	-20	-15	10	-10	-15	3	27	
08-37.5853-105.0997-2-12-						0-C29229	-5	-5	-5	35	-20	-15	13	-10	-15	2	30	
08-37.5361-105.0608-2-12-						0-C29231	-5	-5	-5	37	-20	-15	6	-10	-15	3	28	
08-37.5597-105.1103-2-12-						0-C29232	-5	-5	-5	30	-20	-15	15	-10	-15	3	25	
08-37.5564-105.1303-2-12-						0-C29233	-5	-5	-5	30	-20	-15	10	-10	-15	3	28	
08-37.5636-105.1294-2-11-						0-C29234	-5	-5	-5	35	-20	-15	18	-10	-15	2	19	
08-37.5633-105.1436-2-11-						0-C29235	-5	-5	-5	33	-20	19	17	-10	-15	3	31	
08-37.5744-105.1708-2-12-						0-C29236	-5	-5	-5	34	-20	-15	16	-10	-15	3	36	
08-37.5733-105.1731-2-12-						0-C29237	-5	-5	-5	36	-20	-15	21	-10	16	3	31	
08-37.5644-105.1792-2-12-						0-C29238	-5	-5	-5	41	-20	18	12	-10	-15	3	31	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	PTS. PAR.	SAMPLE TYPE	REPLICATE	DOE SAMPLE NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.7678-105.1492-2-15-						0-C29173	73430	-0.11	729	33910	67	-100	10.9	29	3.3	5	2.2	40660	11.1	19330	46	0.5
08-37.7692-105.2083-2-12-						0-C29174	68750	-0.11	753	34970	59	-117	14.5	51	-2.2	5	1.9	33030	8.5	22070	29	0.5
08-37.7681-105.2431-2-11-						0-C29176	67580	-0.11	726	85260	77	-87	16.1	49	2.3	5	2.0	27200	6.7	20190	49	0.4
08-37.8058-105.2228-2-15-						0-C29177	80020	-0.11	968	30490	87	-109	14.9	48	2.4	5	2.8	43250	14.3	19750	49	0.7
08-37.8008-105.0931-2-12-						0-C29178	68860	-0.20	838	33840	73	-92	12.0	43	-1.9	6	2.0	39920	10.5	24160	-24	0.4
08-37.8003-105.0856-2-15-						0-C29179	42220	-0.19	552	38230	129	-90	20.3	126	2.4	8	2.2	88190	37.3	10230	56	0.9
08-37.7736-105.0753-2-97-						0-C29180	59380	-0.28	403	99090	71	-77	12.3	67	6.1	5	1.8	29410	4.3	20960	-33	0.4
08-37.7961-105.0478-2-15-						0-C29182	39360	-0.17	633	19210	40	-52	6.6	20	-1.6	4	1.2	23000	8.5	16000	-18	0.4
08-37.8339-105.1136-2-12-						0-C29183	58430	-0.22	586	42840	71	-126	13.7	30	-2.1	7	2.0	33340	9.7	12560	-28	0.5
08-37.8339-105.1153-2-12-						0-C29184	71090	-0.21	814	38420	104	-110	13.4	57	-2.3	6	2.5	43830	11.9	20380	63	0.4
08-37.8283-105.1450-2-12-						0-C29185	70970	-0.27	503	54480	70	-100	17.1	68	-2.5	5	2.4	50300	6.1	15860	54	0.3
08-37.8556-105.1650-2-12-						0-C29186	67180	-0.25	779	24030	82	-99	11.9	77	-2.4	7	1.9	69130	16.5	17770	82	0.5
08-37.8703-105.1289-2-15-						0-C29187	75420	-0.20	650	24460	64	-95	14.6	35	3.3	6	1.8	36600	9.2	19140	45	0.7
08-37.8697-105.1242-2-12-						0-C29188	72030	-0.22	918	23880	130	-123	15.9	73	-2.1	9	2.7	47330	15.6	17670	59	0.8
08-37.8003-105.1031-2-15-						0-C29189	51540	-0.24	627	56420	121	-79	19.7	85	3.1	6	2.8	70700	24.7	13760	60	0.8
08-37.8253-105.0931-2-13-						0-C29190	67430	-0.24	828	39780	62	141	13.3	45	2.7	7	2.0	33150	8.9	22640	-25	0.4
08-37.4006-105.0764-2-12-						0-C29191	58450	-0.20	525	39250	54	-69	10.7	51	5.9	5	1.4	24180	5.8	16030	-25	0.5
08-37.4008-105.0747-2-11-						0-C29192	75790	-0.24	619	6827	85	-109	16.2	72	7.7	5	1.9	34430	5.5	23940	-28	0.4
08-37.3811-105.1036-2-12-						0-C29193	68310	-0.26	785	13500	77	-110	13.5	48	-2.4	6	2.2	39990	10.6	23550	-28	0.6
08-37.4714-105.0797-2-12-						0-C29195	67560	-0.29	679	32420	56	-106	11.0	54	-2.7	7	1.5	33320	7.5	20790	-30	0.5
08-37.4594-105.1086-2-12-						0-C29196	63400	-0.22	691	20580	63	-111	11.1	51	-2.0	8	1.4	36740	7.8	21390	-23	0.6
08-37.4928-105.0803-2-15-						0-C29199	69490	-0.19	767	14610	74	-111	9.9	43	-1.3	7	1.8	29570	8.6	19390	-20	0.8
08-37.9497-105.7186-2-12-						0-C29200	69090	-0.22	647	21950	112	117	12.7	42	-2.1	6	3.2	47800	14.1	18080	61	0.7
08-37.9619-105.6797-2-15-						0-C29201	68310	-0.22	777	23050	91	-100	10.3	37	-2.3	7	2.5	42010	11.6	21640	67	0.6
08-37.9328-105.7272-2-15-						0-C29202	65450	-0.18	763	19370	98	-95	13.0	46	-1.8	8	2.5	61150	16.7	19130	60	0.5
08-37.9494-105.6750-2-15-						0-C29203	71580	-0.20	846	22820	129	-114	14.0	76	-1.9	8	2.9	56770	17.5	18940	73	0.8
08-37.9578-105.7003-2-15-						0-C29204	71450	-0.18	837	16970	72	-96	8.2	28	-1.9	4	2.1	25140	8.2	21990	68	0.5
08-37.9758-105.6597-2-12-						0-C29205	65800	-0.23	860	18390	83	-100	9.0	61	-2.2	7	2.4	38550	12.7	21610	63	0.5
08-37.9892-105.7458-2-14-						0-C29206	59390	-0.18	791	34010	94	161	8.5	40	-1.8	7	2.4	43090	12.0	21070	49	0.6
08-37.5392-105.8578-2-15-						0-C29207	79510	-0.22	859	21310	87	-139	12.6	-13	7.2	4	2.2	33840	7.1	21360	-23	0.3
08-37.5025-105.7561-2-11-						0-C29209	74340	-0.19	695	21210	70	149	8.2	32	1.8	3	2.3	23340	6.8	21680	-24	0.4
08-37.9103-105.6494-2-97-						0-C29210	76060	-0.19	855	22070	64	135	5.9	25	-1.7	4	1.9	24440	5.2	21080	54	0.3
08-37.5297-105.0911-2-12-						0-C29212	69720	-0.21	679	18500	75	-93	13.3	37	4.3	6	1.8	31850	9.5	22130	-26	0.4
08-37.5267-105.1186-2-12-						0-C29213	69460	-0.19	807	15400	76	-121	11.3	49	-1.7	7	2.0	35050	10.8	20510	40	0.9
08-37.5292-105.1442-2-12-						0-C29214	70410	-0.26	648	13590	91	-114	17.5	66	-2.5	6	2.5	51760	12.0	21400	-26	0.9
08-37.5275-105.1456-2-12-						0-C29215	71870	-0.27	788	17110	76	-112	14.8	52	3.2	6	1.9	37040	7.6	21520	75	0.5
08-37.5686-105.0169-2-12-						0-C29218	66790	-0.19	982	41180	58	-89	10.3	31	-1.8	5	1.8	30670	9.0	22460	-22	0.3
08-37.5775-105.0450-2-15-						0-C29220	73050	-0.19	936	9627	90	-99	12.0	52	3.4	7	2.2	36520	14.4	21430	57	0.6
08-37.6089-105.0542-2-15-						0-C29221	62920	-0.29	628	18560	64	-110	17.6	47	-2.5	4	1.8	49510	8.6	16030	-31	0.3
08-37.6078-105.0389-2-15-						0-C29222	71880	-0.22	973	12530	58	-97	12.3	33	-2.1	5	2.0	41460	10.6	27000	46	0.5
08-37.5917-105.0278-2-15-						0-C29224	81670	-0.22	847	19890	73	-93	17.3	44	-2.2	6	1.9	35360	4.4	22520	-25	0.4
08-37.5978-105.0739-2-11-						0-C29228	85270	-0.21	998	12680	80	-105	13.1	46	2.7	5	2.2	42330	8.9	24350	-22	0.5
08-37.5853-105.0597-2-12-						0-C29229	78440	-0.27	782	9352	90	-81	16.2	66	4.9	6	2.3	38680	15.4	21750	-30	0.4
08-37.5361-105.0608-2-12-						0-C29231	72160	-0.25	787	14720	65	-105	9.6	36	2.8	6	2.0	29080	11.2	21800	-26	0.6
08-37.5597-105.1103-2-12-						0-C29232	73100	-0.20	883	15820	62	-96	9.3	35	3.3	6	1.8	23950	10.0	23920	56	0.4
08-37.5564-105.1303-2-12-						0-C29233	77540	-0.22	800	12860	107	-114	14.2	55	2.4	7	2.5	35710	14.7	21930	51	0.7
08-37.5636-105.1294-2-11-						0-C29234	75320	-0.34	745	9671	80	-105	11.4	44	-3.0	5	2.0	32340	10.0	19100	-40	-0.3
08-37.5633-105.1436-2-11-						0-C29235	72910	-0.28	683	12310	67	-79	12.8	53	5.8	5	1.7	28770	6.8	24060	-32	0.4
08-37.5744-105.1708-2-12-						0-C29236	71870	-0.11	844	17540	68	-113	14.1	42	2.7	6	1.7	32710	7.5	19030	29	0.5
08-37.5733-105.1731-2-12-						0-C29237	79200	-0.10	929	15660	95	-126	12.1	40	2.2	7	2.2	30990	10.5	30090	55	0.7
08-37.5644-105.1792-2-12-						0-C29238	71210	-0.13	741	13620	72	-114	13.2	42	-2.6	5	2.1	32780	10.6	21290	50	0.8

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

4

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb		Zn
08-37.7678-105.1492-2-15-	0-C29173	13020	611	20150	69	-3	9.4	5.3	-288	-1	-1	9.7	4768	105	3.4	40	0.303					
08-37.7692-105.2083-2-12-	0-C29174	18760	1080	18140	-38	-3	10.3	5.4	-396	-1	-1	8.2	4877	77	3.6	-80	0.448					
08-37.7681-105.2431-2-11-	0-C29176	15150	362	12180	-36	-3	8.9	4.7	567	-2	-1	8.3	3777	112	2.4	-36	1.648					
08-37.8058-105.2228-2-15-	0-C29177	12770	569	19180	78	-3	11.3	7.0	-320	-1	-1	12.2	4732	95	3.0	-50	0.262					
08-37.8008-105.0931-2-12-	0-C29178	16620	734	15640	-37	-5	10.3	7.7	-288	-1	-1	9.9	5010	111	4.3	98	0.413					
08-37.8003-105.0856-2-15-	0-C29179	15500	1035	10020	-37	-5	12.7	15.2	-324	3	-1	14.7	9822	252	7.7	87	0.373					
08-37.7736-105.0753-2-97-	0-C29180	15810	561	4555	74	-7	10.8	5.0	-287	-2	-1	12.2	2893	197	-4.5	-131	0.406					
08-37.7961-105.0478-2-15-	0-C29182	9180	435	6024	-32	-4	5.9	3.8	-193	-1	-1	5.8	3640	63	-2.4	67	0.417					
08-37.8339-105.1136-2-12-	0-C29183	13090	1868	13360	-39	-6	9.2	6.0	-491	-1	-1	8.7	4998	77	6.2	83	0.464					
08-37.8339-105.1153-2-12-	0-C29184	17110	1059	13880	-36	-5	11.5	7.4	-399	-1	2	10.0	5680	123	5.1	92	0.366					
08-37.8283-105.1450-2-12-	0-C29185	24950	1298	9785	-51	-7	13.7	5.7	623	-2	-1	8.2	4077	102	-4.6	-51	0.371					
08-37.8556-105.1650-2-12-	0-C29186	11390	901	17300	-47	-6	11.3	6.0	-321	-1	-2	12.3	10590	188	7.4	-82	0.429					
08-37.8703-105.1289-2-15-	0-C29187	19960	808	16740	82	-5	10.7	8.0	-306	-1	-1	9.6	4847	93	-2.8	111	0.341					
08-37.8697-105.1242-2-12-	0-C29188	16450	1043	18120	-39	-6	12.6	13.4	-410	-1	-1	15.4	6436	115	7.7	83	0.286					
08-37.8522-105.1031-2-15-	0-C29189	13420	828	10670	-46	-6	13.5	10.7	-269	-1	-1	14.8	6362	175	6.9	127	0.327					
08-37.8253-105.0931-2-13-	0-C29190	22860	719	15280	-42	-6	10.9	5.5	544	-1	-1	10.2	5167	85	4.8	82	0.492					
08-37.4006-105.0764-2-12-	0-C29191	15240	346	8584	-34	-5	8.1	5.6	-225	-1	-1	9.8	3562	126	-2.7	155	0.450					
08-37.4008-105.0747-2-11-	0-C29192	13480	1158	9454	65	-6	10.6	7.1	-455	-1	-1	14.4	4663	142	6.4	-9	0.269					
08-37.3811-105.1036-2-12-	0-C29193	14730	561	23420	87	-6	12.1	-2.9	-298	-1	-1	8.3	4130	91	-6.3	52	0.584					
08-37.4714-105.0797-2-12-	0-C29195	20580	664	18000	-52	-7	11.2	-2.9	-334	-1	-1	7.4	5235	107	4.7	78	0.626					
08-37.4594-105.1086-2-12-	0-C29196	14430	716	23240	-37	-6	10.4	7.2	-325	-1	-1	6.0	3995	104	5.5	-41	0.768					
08-37.4928-105.0803-2-15-	0-C29199	15820	591	20840	-33	-5	10.1	8.9	-329	-1	-1	9.1	4191	88	7.0	63	0.434					
08-37.9497-105.7186-2-12-	0-C29200	8716	646	23420	-41	-6	12.9	11.7	320	2	-1	12.8	5290	94	9.4	77	0.260					
08-37.9619-105.6797-2-15-	0-C29201	8748	687	23840	-38	-6	11.3	9.0	478	-1	2	9.7	6116	98	6.0	104	0.380					
08-37.9328-105.7272-2-15-	0-C29202	9296	704	22780	-36	-5	10.3	8.8	333	2	-1	9.3	6486	145	4.5	91	0.437					
08-37.9494-105.6750-2-15-	0-C29203	19010	768	21890	65	-5	11.8	12.5	-346	-1	1	10.5	6048	123	6.3	-28	0.447					
08-37.9578-105.7003-2-15-	0-C29204	6174	414	25010	-34	-5	9.0	7.9	-240	-1	-1	8.3	2796	54	4.5	-39	0.313					
08-37.9758-105.6597-2-12-	0-C29205	11950	646	22110	51	-6	11.0	5.7	550	-1	1	10.5	5068	93	5.3	-36	0.441					
08-37.9892-105.7458-2-14-	0-C29206	13400	775	20050	-33	-5	9.8	8.1	-289	2	1	12.1	5654	99	4.1	30	0.315					
08-37.5392-105.8578-2-15-	0-C29207	11940	1404	17220	89	-6	9.8	5.7	-504	-1	-1	10.6	4284	77	5.3	291	0.430					
08-37.5025-105.7561-2-11-	0-C29209	9834	401	25870	-32	-5	10.5	5.5	-243	-1	-1	7.5	2700	49	4.9	-38	0.349					
08-37.9103-105.6494-2-97-	0-C29210	11970	470	25590	45	-5	7.7	3.7	420	-1	-1	7.7	3754	60	-3.2	-39	0.344					
08-37.5297-105.0911-2-12-	0-C29212	19450	618	15480	70	-6	9.8	5.6	-292	-1	-1	8.7	4807	102	4.2	99	0.478					
08-37.5267-105.1186-2-12-	0-C29213	16940	659	25740	-32	-5	10.7	7.0	-349	-1	1	7.8	3788	87	6.5	48	0.555					
08-37.5292-105.1442-2-12-	0-C29214	15560	797	24320	89	-7	14.7	5.7	-325	-1	-1	9.0	4128	115	-3.7	-53	0.499					
08-37.5275-105.1456-2-12-	0-C29215	24090	830	20590	-50	-7	13.0	4.9	-351	-1	2	10.0	4728	88	-3.8	177	0.560					
08-37.5686-105.0169-2-12-	0-C29218	12050	541	15650	-33	-5	8.0	6.1	395	-1	-1	8.2	4054	80	-2.7	106	0.316					
08-37.5775-105.0450-2-15-	0-C29220	14340	738	14200	67	-5	8.9	9.8	-340	-1	-1	11.9	4534	94	4.9	74	0.304					
08-37.6089-105.0542-2-15-	0-C29221	13020	995	14780	-53	-7	11.1	-3.2	-377	-2	-1	7.4	4993	107	-5.0	-92	0.368					
08-37.6078-105.0389-2-15-	0-C29222	12120	750	18660	-42	-6	8.7	3.7	-305	-1	-1	7.7	5229	109	-3.2	79	0.394					
08-37.5917-105.0278-2-15-	0-C29224	23160	700	13460	-39	-6	12.2	5.2	-304	-1	-1	7.6	4349	93	3.8	-100	0.313					
08-37.5978-105.0739-2-11-	0-C29228	14770	623	15440	77	-5	10.9	6.3	-341	-1	-1	8.6	5015	115	-3.9	99	0.303					
08-37.5853-105.0997-2-12-	0-C29229	13140	516	11450	-46	-7	11.5	5.6	-271	-1	-2	13.9	4344	103	7.8	118	0.287					
08-37.5361-105.0608-2-12-	0-C29231	13050	584	22120	-42	-6	10.0	5.9	-306	-1	-1	7.8	4895	86	-3.5	-52	0.491					
08-37.5597-105.1103-2-12-	0-C29232	11350	414	19780	81	-5	8.2	5.6	-269	-1	-1	7.9	4530	82	-3.0	90	0.508					
08-37.5564-105.1303-2-12-	0-C29233	10750	907	15550	71	-6	11.8	8.7	-393	-1	1	13.1	5970	97	8.5	-13	0.342					
08-37.5636-105.1294-2-11-	0-C29234	11740	408	13300	-62	-9	10.7	5.7	-320	-3	-1	11.9	4669	79	-5.2	211	0.284					
08-37.5633-105.1436-2-11-	0-C29235	15600	491	9137	60	-7	9.3	6.1	-278	-1	-1	9.9	5018	97	-4.3	-112	0.370					
08-37.5744-105.1708-2-12-	0-C29236	15390	886	19960	55	-3	10.4	5.1	-362	-2	-1	7.5	4039	97	3.8	-55	0.515					
08-37.5733-105.1731-2-12-	0-C29237	18150	619	23360	58	-3	11.3	8.2	-374	-1	-1	9.2	4880	85	5.9	79	0.472					
08-37.5644-105.1792-2-12-	0-C29238	16510	510	23590	59	-3	12.5	6.5	-311	-2	1	8.5	4044	74	5.2	-47	0.429					

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																	U CONCENTRATION											
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REH/LAIL	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	CUMULANTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (cL/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																										
08-37.6092-105.2158-2-11	0-C29239-04/09/76-16	4	2.0	-	7.8	165	3-4	-5-6-3-3-1-1-4-4-3-3	-3	-	-	-	3.59																					
08-37.6167-105.2142-2-11	0-C29240-04/09/76-15	4	2.2	-	8.2	370	9-4	-3-7-2-2-1-2-4-4-3-3	-3	-	-	-	4.00																					
08-37.6022-105.2300-2-12	0-C29241-04/09/76-16	5	3.5	-	8.0	150	6-4	-3-7-3-2-3-2-4-4-4-3	-3	-	-	-	3.60																					
08-37.5925-105.2447-2-12	0-C29242-04/09/76-15	6	5.5	-	7.6	270	9-3	-1-3-1-2-2-1-2-3-2-5-3	-1	-	-	-	4.26																					
08-37.7072-105.2533-2-15	0-C29243-04/10/76-11	8	-	-	-	-	3-1	-1-4-6-	-	-	-	-	3.20																					
08-37.6867-105.2667-2-12	0-C29244-04/10/76-11	17	10.0	-	7.6	360	9-4	-5-8-2-2-1-2-4-3-3-1	-3	-	-	-	4.28																					
08-37.6908-105.2950-2-12	0-C29245-04/10/76-12	14	11.6	-	8.2	5000	15-3	-1-3-1-2-2-1-2-4-3-3-1	-3	-	-	-	4.35																					
08-37.7244-105.2753-2-12	0-C29246-04/10/76-12	7	10.0	-	8.2	230	0-3	-1-3-1-3-3-1-2-4-2-3-1	-3	-	-	-	4.55																					
08-37.7303-105.3150-2-12	0-C29247-04/10/76-13	8	11.0	-	8.2	240	6-3	-1-3-1-3-4-1-2-4-4-2-1	-3	-	-	-	3.71																					
08-37.7283-105.3525-2-12	0-C29249-04/10/76-14	6	13.4	-	8.3	220	12-3	-7-4-7-3-2-2-1-3-3-4-1	-1	-	-	-	3.61																					
08-37.8919-105.2242-2-15	0-C29250-04/07/76-10	11	-	-	-	-	21-2	-6-2-6-	-1	-	-	-	4.69																					
08-37.9161-105.2303-2-15	0-C29251-04/07/76-10	11	-	-	-	-	18-2	-1-2-1-	-1	-	-	-	5.23																					
08-37.9158-105.2272-2-15	0-C29252-04/07/76-11	12	-	-	-	-	12-2	-1-4-1-	-1	-	-	-	7.37																					
08-37.9442-105.2456-2-11	0-C29254-04/07/76-11	12	6.7	C-	7.3	155	12-4	-5-6-2-2-1-2-3-2-4-2	-9	-	-	-	3.69																					
08-37.9542-105.2333-2-11	0-C29255-04/07/76-12	10	6.9	C-	7.3	120	21-4	-6-6-2-3-1-	-4-2-4-3	-9	-	-	6.19																					
08-37.9831-105.1900-2-12	0-C29256-04/07/76-13	9	0.9	-	7.4	145	8-2	-4-1-6-3-3-1-2-2-3-5-3	-3	-	-	-	4.49																					
08-37.9542-105.1958-2-12	0-C29257-04/07/76-14	9	1.1	-	7.6	135	18-2	-4-2-4-3-2-1-2-3-2-4-3	-3	-	-	-	3.16																					
08-37.9331-105.1597-2-12	0-C29258-04/07/76-14	9	3.6	-	8.3	195	16-2	-4-2-4-3-3-1-2-1-2-4-2	-3	-	-	-	3.60																					
08-37.9167-105.1836-2-12	0-C29259-04/07/76-15	10	3.0	-	8.1	150	16-2	-4-2-6-3-3-1-2-2-2-4-2	-3	-	-	-	3.09																					
08-37.9064-105.1378-2-12	0-C29260-04/07/76-15	7	0.6	-	7.2	120	10-2	-4-2-4-3-3-1-2-1-3-4-2	-3	-	-	-	8.26																					
08-37.8781-105.1425-2-12	0-C29261-04/07/76-16	11	9.5	C-	8.0	500	18-4	-7-7-2-2-1-2-3-2-4-2	-3	-	-	-	4.73																					
08-37.8756-105.2408-2-12	0-C29262-04/08/76-12	12	10.0	-	8.0	800	10-2	-1-3-6-2-2-1-2-1-2-4-2	-3	-	-	-	9.76																					
08-37.3600-105.2750-2-15	0-C29263-04/28/76-13	15	-	-	-	-	11-3	-1-4-1-	-1	-	-	-	6.82																					
08-37.7953-105.5057-2-12	0-C29282-0																																	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb		Zn
08-37.6092-105.2158-2-11-	0-C29239	15190	615	17210	83	-4	11.1	3.8	-330	-2	-1	9.4	4705	84	-3.1	-64	0.382					
08-37.6167-105.2142-2-11-	0-C29240	18870	783	19450	71	-3	11.6	5.9	-330	-1	-1	9.5	4999	79	4.0	140	0.421					
08-37.6022-105.2300-2-12-	0-C29241	17370	697	20360	-36	-3	10.4	6.7	-395	-1	-1	9.9	4239	82	6.5	119	0.364					
08-37.5925-105.2447-2-12-	0-C29242	21350	779	18690	-45	-3	13.5	7.0	-336	-2	2	12.0	5096	86	-2.5	116	0.355					
08-37.7072-105.2533-2-15-	0-C29243	16210	606	19670	57	-3	8.6	5.0	-286	-1	-1	8.6	3929	75	4.6	-58	0.372					
08-37.6867-105.2667-2-12-	0-C29244	24370	697	17340	-40	-3	11.2	5.5	-336	-2	-1	9.9	4910	89	-2.3	137	0.432					
08-37.6908-105.2950-2-12-	0-C29245	27020	601	19160	60	-3	12.0	7.5	-353	-1	-1	11.5	4990	105	3.8	79	0.378					
08-37.7244-105.2753-2-12-	0-C29246	22180	738	20970	65	-3	14.6	8.1	-305	-1	-1	12.8	5596	140	5.4	115	0.355					
08-37.7303-105.3150-2-12-	0-C29247	22360	652	21880	62	-3	11.1	5.3	494	-1	-1	7.8	5058	94	4.5	-68	0.476					
08-37.7283-105.3525-2-12-	0-C29249	27970	691	19930	55	-3	10.9	4.9	-319	-1	-1	8.5	4038	74	4.0	-50	0.425					
08-37.8919-105.2242-2-15-	0-C29250	10120	692	21150	55	-2	9.0	7.1	-350	-1	-1	11.5	5353	116	3.7	63	0.408					
08-37.9161-105.2303-2-15-	0-C29251	15170	663	16730	-45	-3	14.5	7.1	481	-1	-2	11.2	4781	101	3.9	-70	0.467					
08-37.9158-105.2272-2-15-	0-C29252	5934	912	17620	-48	-3	15.3	7.5	-321	2	-2	18.0	9968	149	4.7	126	0.409					
08-37.9442-105.2456-2-11-	0-C29254	12950	879	20130	96	-2	8.4	3.9	-348	-2	-1	10.3	3667	73	4.4	190	0.358					
08-37.9542-105.2333-2-11-	0-C29255	11440	656	15420	-43	-3	7.5	4.3	-459	-2	-1	12.7	2606	62	-2.5	309	0.487					
08-37.9831-105.1900-2-12-	0-C29256	15820	1641	18700	-55	-4	16.6	11.8	-475	-2	-2	13.4	4092	120	7.6	115	0.335					
08-37.9542-105.1958-2-12-	0-C29257	19210	985	19210	-46	-3	15.1	7.4	449	-1	-1	9.3	6434	93	3.4	101	0.340					
08-37.9331-105.1997-2-12-	0-C29258	17940	928	22700	-40	-3	11.4	6.8	-357	-1	-1	9.7	7566	126	4.4	114	0.371					
08-37.9167-105.1836-2-12-	0-C29259	15320	754	14820	-36	-3	10.2	6.9	-372	-1	-1	9.6	5901	98	3.2	113	0.322					
08-37.9064-105.1378-2-12-	0-C29260	15000	593	20040	81	-4	13.7	8.3	-328	-2	-1	10.2	3990	76	4.6	65	0.810					
08-37.8781-105.1425-2-12-	0-C29261	17330	801	12660	-51	-3	12.5	5.4	-339	-2	-1	9.8	5567	120	4.4	-62	0.483					
08-37.8756-105.2408-2-12-	0-C29262	13160	1016	16570	-48	-3	14.8	7.3	-357	-2	-1	12.0	8823	214	5.3	176	0.813					
08-37.3600-105.2750-2-15-	0-C29263	15450	1537	14140	-44	-3	17.0	10.4	-445	-1	-1	12.5	14390	479	7.0	146	0.546					
08-37.7953-105.5667-2-12-	0-C29282	9809	693	24510	-40	-3	12.2	7.3	435	-1	-1	11.1	5756	125	4.4	108	0.289					
08-37.7764-105.5078-2-12-	0-C29283	22160	1764	14200	-58	-3	22.1	13.6	-415	3	3	12.0	18540	517	5.8	322	0.330					
08-37.7725-105.5064-2-15-	0-C29284	8420	1144	20760	-42	-3	13.1	7.7	-327	2	-1	9.3	12520	341	4.4	244	0.339					
08-37.8292-105.7322-2-11-	0-C29286	27150	888	18860	-34	-2	6.7	4.8	581	-1	-1	8.0	3311	80	-1.9	-31	0.304					
08-37.3211-105.1311-2-12-	0-C29292	12500	674	22330	119	-3	11.8	4.6	-322	-1	-1	8.6	3622	103	5.8	-122	0.602					
08-37.2061-105.1150-2-12-	0-C29294	25340	506	17020	73	-3	11.7	4.8	-291	-1	-1	10.3	4503	85	6.4	135	0.611					
08-37.1731-105.1597-2-11-	0-C29295	13120	702	15460	-47	-3	14.0	10.2	-350	-2	-2	7.6	4190	90	3.3	211	4.733					
08-37.1406-105.1642-2-11-	0-C29296	31250	1054	16960	-37	-2	21.1	8.7	-440	-1	-1	9.0	6112	170	4.1	-51	1.307					
08-37.4375-105.2375-2-12-	0-C29297	15770	516	21170	63	-2	10.7	6.5	-295	-1	-1	9.6	4565	84	4.8	66	0.456					
08-37.4364-105.2375-2-15-	0-C29298	16770	725	22270	-32	-2	12.4	7.0	-314	-1	-1	8.7	6844	129	3.7	-40	0.579					
08-37.4333-105.1967-2-12-	0-C29299	11440	703	24580	59	-2	10.7	5.4	-376	-1	-1	7.1	5020	83	5.0	-41	0.549					
08-37.4344-105.1964-2-12-	0-C29300	19690	871	19900	67	-2	12.5	6.2	-356	-1	-1	9.8	4832	88	4.2	155	0.513					
08-37.3922-105.2000-2-11-	0-C29301	22670	795	18780	-40	-2	16.4	10.7	-348	-2	1	8.6	8497	131	5.0	116	1.384					
08-37.4292-105.1728-2-12-	0-C29302	11440	586	25580	57	-1	9.2	5.0	-291	-1	-1	6.1	3901	59	3.8	31	0.556					
08-37.4378-105.1650-2-11-	0-C29303	10430	258	21080	69	-2	7.8	5.8	-297	-1	-1	6.9	4038	37	4.3	53	0.638					
08-37.4494-105.1728-2-11-	0-C29304	21620	759	17480	80	-2	16.0	9.8	-352	-2	-1	9.7	4929	137	3.5	-102	2.248					
08-37.4581-105.1278-2-11-	0-C29305	15250	599	22330	63	-2	11.5	7.5	-328	-2	-1	8.1	5080	95	7.7	-49	0.698					
08-37.4719-105.1850-2-13-	0-C29306	20880	610	20150	67	-2	15.5	7.9	-326	-1	-1	11.0	5083	105	5.3	-41	0.496					
08-37.4806-105.1878-2-12-	0-C29307	12630	648	24810	56	-2	9.5	5.3	-363	-1	-1	6.7	4288	65	4.1	77	0.704					
08-37.4939-105.1861-2-11-	0-C29308	8564	490	25410	58	-1	9.8	5.6	-274	-1	1	7.3	3743	78	3.8	86	0.766					
08-37.3822-105.2089-2-12-	0-C29309	9409	1121	17570	52	-2	9.1	11.7	-388	-1	-1	11.0	6067	87	4.4	-118	2.060					
08-37.3828-105.2086-2-12-	0-C29310	23140	974	18660	63	-2	16.4	13.6	-349	-1	1	10.7	7234	127	6.8	121	1.467					
08-37.3436-105.1839-2-11-	0-C29311	13190	768	28390	-28	-1	7.8	8.7	-388	-1	-1	10.8	4330	83	4.1	102	0.369					
08-37.2700-105.2150-2-11-	0-C29312	17590	720	19270	-40	-6	9.6	42.4	389	3	-1	11.6	4407	127	5.1	46	20.052					
08-37.3117-105.2256-2-12-	0-C29313	21920	1008	19450	-49	-5	21.6	14.1	-328	-2	2	12.7	7072	158	9.0	155	0.873					
08-37.3017-105.2061-2-12-	0-C29314	19160	646	12540	-51	-5	10.6	3.0	-387	-2	-1	7.0	5531	109	-3.7	172	0.626					
08-37.2722-105.1922-2-12-	0-C29316	17640	669	12960	99	-4	12.0	6.8	-297	-2	-1	12.8	4255	80	7.7	-113	1.230					
08-37.2444-105.1631-2-11-	0-C29317	20400	1037	19150	-40	-4	11.4	4.6	747	-1	-1	4.3	4881	105	4.8	119	0.307					

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE LAB LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.2075-105.2017-2-12-			0-C29318				-5	-5	-5	45	-20	23	14	-10	-15	3	62	
08-37.2006-105.1819-2-11-			0-C29319				-5	5	-5	28	-20	-15	22	-10	-15	4	49	
08-37.2233-105.1758-2-11-			0-C29320				-5	-5	-5	30	-20	22	19	-10	-15	4	90	
08-37.2303-105.1719-2-11-			0-C29321				-5	-5	-5	29	-20	-15	18	-10	-15	4	97	
08-37.2333-105.1747-2-11-			0-C29322				-5	-5	-5	31	-20	18	16	-10	-15	4	110	
08-37.1828-105.2347-2-12-			0-C29323				-5	-5	-5	36	-20	-15	-5	-10	-15	4	57	
08-37.1744-105.2239-2-12-			0-C29324				-5	-5	-5	46	-20	-15	6	-10	-15	3	61	
08-37.1744-105.2289-2-12-			0-C29325				-5	-5	-5	91	-20	-15	6	-10	-15	3	51	
08-37.1658-105.1944-2-12-			0-C29326				-5	-5	-5	41	-20	-15	11	-10	-15	3	65	
08-37.1653-105.1947-2-12-			0-C29327				-5	-5	-5	26	-20	-15	-5	-10	-15	4	37	
08-37.1386-105.2128-2-11-			0-C29328				-5	-5	-5	85	-20	17	11	-10	-15	3	43	
08-37.1372-105.2122-2-11-			0-C29329				-5	-5	-5	26	27	15	14	-10	-15	4	63	
08-37.1169-105.1997-2-11-			0-C29330				-5	-5	-5	63	-20	-15	25	10	-15	5	66	
08-37.0928-105.2142-2-11-			0-C29331				-5	6	-5	31	-20	26	21	-10	-15	6	63	
08-37.0775-105.2300-2-11-			0-C29332				-5	5	-5	12	-20	17	-5	-10	20			
08-37.2258-105.2750-2-12-			0-C29333				-5	-5	-5	27	-20	-15	14	-10	-15	4	58	
08-37.8444-105.4039-2-12-			0-C29334				-5	-5	-5	20	-20	-15	8	-10	-15	3	33	
08-37.8111-105.3883-2-12-			0-C29335				-5	-5	-5	19	-20	-15	9	-10	-15	3	38	
08-37.8006-105.4022-2-12-			0-C29336				-5	-5	-5	35	-20	17	13	-10	-15	3	39	
08-37.7522-105.3878-2-15-			0-C29337				-5	-5	-5	24	-20	-15	12	-10	-15	3	40	
08-37.7600-105.3781-2-12-			0-C29338				-5	-5	-5	16	-20	-15	10	-10	-15	3	42	
08-37.8156-105.4658-2-13-			0-C29339				-5	-5	-5	16	-20	-15	6	-10	-15	2	26	
08-37.3353-105.3839-2-12-			0-C29342				-5	5	-5	18	-20	17	-5	-10	-15	3	32	
08-37.5144-105.0117-2-12-			0-C29343				-5	-5	-5	34	-20	-15	19	-10	-15	2	31	
08-37.5083-105.0711-2-12-			0-C29344				-5	-5	-5	31	-20	21	10	-10	-15	2	38	
08-37.4903-105.0028-2-13-			0-C29345				-5	-5	-5	27	-20	-15	13	-10	-15	3	31	
08-37.4722-105.0097-2-12-			0-C29346				-5	-5	-5	24	-20	-15	19	-10	-15	3	38	
08-37.4147-105.0244-2-12-			0-C29347				-5	-5	-5	28	-20	29	19	-10	-15	2	14	
08-37.4442-105.0781-2-11-			0-C29348				-5	5	-5	31	-20	22	14	-10	-15	-1	107	
08-37.4364-105.0822-2-11-			0-C29349				-5	-5	-5	33	-20	20	12	-10	-15	3	35	
08-37.4883-104.9883-2-12-			0-C29350				-5	-5	-5	21	-20	-15	24	-10	-15	3	48	
08-37.4186-104.9722-2-12-			0-C29353				-5	-5	-5	29	-20	-15	29	-10	-15	2	30	
08-37.4800-104.9106-2-97-			0-C29357				-5	-5	-5	26	-20	-15	13	-10	-15	2	35	
08-37.4792-104.9100-2-12-			0-C29358				-5	-5	-5	15	-20	16	5	-10	-15	2	23	
08-37.4739-104.9192-2-12-			0-C29359				-5	-5	-5	22	-20	17	17	-10	-15	2	33	
08-37.4808-104.8844-2-12-			0-C29360				-5	6	-5	19	-20	-15	12	-10	-15	2	22	
08-37.4547-104.9086-2-12-			0-C29361				-5	-5	-5	12	-20	-15	13	-10	-15	2	39	
08-37.4464-104.8764-2-15-			0-C29362				-5	-5	-5	25	-20	23	12	-10	-15	3	34	
08-37.7392-104.9794-2-15-			0-C29363				-5	-5	-5	20	-20	24	-5	-10	-15	1	47	
08-37.7425-104.9658-2-15-			0-C29364				-5	-5	-5	30	-20	-15	-5	-10	-15	2	36	
08-37.7139-104.9628-2-15-			0-C29365				6	-5	-5	25	-20	22	-5	31	41	-1	16	
08-37.7153-104.9622-2-11-			0-C29366				-5	-5	-5	27	-20	-15	8	-10	-15	2	44	
08-37.7225-104.9006-2-11-			0-C29367				-5	-5	-5	19	-20	-15	10	-10	-15	2	35	
08-37.7328-104.9211-2-15-			0-C29368				-5	-5	-5	23	-20	-15	7	-10	-15	2	43	
08-37.7428-104.9144-2-12-			0-C29369				-5	-5	-5	29	-20	-15	8	-10	-15	2	47	
08-37.7394-104.8806-2-15-			0-C29370				-5	8	-5	20	-20	15	8	-10	-15	-1	39	
08-37.6931-104.9022-2-15-			0-C29372				-5	-5	-5	34	-20	-15	-5	-10	-15	2	21	
08-37.6667-104.8967-2-96-			0-C29374				-5	-5	-5	30	-20	17	8	-10	-15	3	44	
08-37.6422-104.8750-2-15-			0-C29375				-5	-5	-5	27	-20	17	-5	-10	-15	1	19	
08-37.3350-105.2544-2-12-			0-C29377				-5	-5	-5	35	-20	15	6	-10	-15	3	50	
08-37.8858-105.8319-2-96-			0-C29380				-5	-5	-5	-10	-20	-15	-5	-10	-15	3	32	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS. SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.8772-105.1789-2-12-						0-C29384	-5	-5	-5	14	-20	18	9	-10	-15	1	37	
08-37.9844-105.0553-2-14-						0-C29385	8	-5	-5	337	26	19	39	18	-15	2	36	
08-37.7264-105.0025-2-96-						0-C29386	-5	-5	-5	34	-20	17	6	-10	-15	2	29	
08-37.7281-105.0164-2-12-						0-C29387	-5	-5	-5	25	-20	-15	9	-10	-15	2	28	
08-37.7256-105.0228-2-15-						0-C29388	-5	-5	-5	17	-20	-15	7	-10	-15	2	25	
08-37.7464-105.0753-2-12-						0-C29389	-5	-5	-5	22	-20	17	7	-10	-15	3	31	
08-37.7367-105.0728-2-15-						0-C29390	-5	-5	-5	36	-20	-15	7	-10	-15	2	21	
08-37.7069-105.0503-2-15-						0-C29392	-5	-5	-5	34	-20	20	6	-10	-15	1	19	
08-37.7075-105.0522-2-15-						0-C29393	-5	-5	-5	27	-20	-15	-5	10	-15	-1	18	
08-37.7047-105.0597-2-15-						0-C29394	-5	-5	-5	13	-20	-15	6	-10	-15	2	26	
08-37.7064-105.0600-2-15-						0-C29395	-5	-5	-5	24	-20	-15	7	-10	-15	2	19	
08-37.7306-105.0544-2-15-						0-C29396	-5	-5	-5	33	-20	-15	-5	-10	-15	1	25	
08-37.6847-105.1147-2-97-						0-C29397	-5	-5	-5	30	-20	15	9	-10	-15	3	31	
08-37.6836-105.1108-2-12-						0-C29398	-5	-5	-5	20	-20	-15	12	-10	-15	1	28	
08-37.6775-105.0136-2-15-						0-C29401	-5	-5	-5	32	-20	-15	5	-10	-15	2	27	
08-37.6378-105.0542-2-11-						0-C29402	-5	-5	-5	27	-20	-15	13	-10	-15	2	17	
08-37.6308-105.0786-2-11-						0-C29403	-5	-5	-5	18	-20	-15	15	-10	-15	2	16	
08-37.6406-105.1292-2-97-						0-C29404	-5	-5	-5	44	-20	24	11	-10	-15	3	40	
08-37.6422-105.1258-2-15-						0-C29405	-5	-5	-5	24	-20	-15	15	-10	-15	2	29	
08-37.6494-105.1258-2-14-						0-C29406	-5	-5	-5	28	-20	20	8	-10	-15	2	12	
08-37.6539-105.1597-2-12-						0-C29407	-5	-5	-5	31	-20	26	15	-10	-15	2	39	
08-37.6528-105.1592-2-12-						0-C29408	-5	-5	-5	39	-20	26	16	-10	-15	2	44	
08-37.6781-105.1497-2-11-						0-C29409	-5	-5	-5	18	-20	-15	11	-10	-15	2	29	
08-37.6833-105.1603-2-11-						0-C29410	-5	5	-5	24	-20	-15	15	-10	-15	2	38	
08-37.3361-105.2553-2-15-						0-C29411	-5	-5	-5	35	-20	-15	10	-10	-15	2	36	
08-37.7097-105.1283-2-15-						0-C29412	-5	-5	-5	38	-20	16	8	-10	-15	2	32	
08-37.7097-105.1342-2-14-						0-C29413	-5	-5	-5	16	-20	-15	9	-10	-15	3	26	
08-37.7472-105.1500-2-15-						0-C29414	-5	-5	-5	35	-20	-15	14	-10	-15	2	14	
08-37.7367-105.2372-2-12-						0-C29415	-5	-5	-5	19	-20	-15	13	-10	-15	3	22	
08-37.6489-105.2108-2-12-						0-C29416	-5	-5	-5	33	-20	-15	10	-10	-15	2	21	
08-37.6628-105.2206-2-12-						0-C29417	-5	-5	-5	33	-20	-15	12	-10	-15	2	40	
08-37.6919-105.2339-2-12-						0-C29418	-5	-5	-5	24	-20	20	10	-10	-15	3	27	
08-37.7014-105.2294-2-14-						0-C29419	-5	-5	-5	31	-20	-15	14	-10	-15	2	25	
08-37.7033-105.2131-2-11-						0-C29420	-5	-5	-5	19	-20	19	16	-10	-15	3	35	
08-37.6925-105.2014-2-11-						0-C29421	-5	-5	-5	22	-20	-15	5	-10	-15	2	23	
08-37.8392-104.8769-2-12-						0-C29422	-5	-5	-5	23	-20	-15	12	-10	-15	3	31	
08-37.8256-104.9106-2-97-						0-C29423	-5	-5	-5	32	-20	-15	17	-10	-15	2	45	
08-37.8194-104.9253-2-15-						0-C29424	-5	-5	-5	23	-20	22	15	-10	-15	3	33	
08-37.8486-104.9439-2-12-						0-C29425	-5	-5	-5	17	-20	-15	17	-10	-15	2	21	
08-37.8564-104.9428-2-12-						0-C29426	-5	-5	-5	31	-20	16	17	-10	-15	2	11	
08-37.7878-104.9358-2-97-						0-C29428	-5	-5	-5	16	-20	-15	10	-10	-15	2	50	
08-37.7761-104.9450-2-97-						0-C29429	-5	-5	-5	31	-20	18	16	-10	-15	2	22	
08-37.7544-104.9197-2-97-						0-C29430	-5	-5	-5	27	-20	18	16	10	-15	2	41	
08-37.7589-104.9031-2-15-						0-C29431	-5	-5	-5	18	-20	16	6	-10	-15	2	32	
08-37.7897-104.8994-2-15-						0-C29432	-5	-5	-5	29	-20	26	13	-10	-15	2	48	
08-37.8008-104.8778-2-15-						0-C29433	-5	-5	-5	39	-20	22	11	-10	-15	3	48	
08-37.7072-105.3731-2-12-						0-C29434	-5	-5	-5	25	-20	19	-5	-10	-15	2	45	
08-37.7089-105.3731-2-11-						0-C29435	6	-5	-5	19	-20	-15	5	-10	-15	2	19	
08-37.7244-105.3544-2-12-						0-C29436	-5	-5	-5	35	-20	21	13	-10	-15	3	55	
08-37.7069-105.3489-2-12-						0-C29437	-5	-5	-5	34	-20	-15	11	-10	-15	2	45	
08-37.6950-105.3347-2-12-						0-C29438	-5	-5	-5	17	-20	-15	-5	-10	-15	2	36	

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[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.6753-105.3200-2-12-						0-C29439	-5	-5	-5	28	-20	17	-5	-10	-15		2	49
08-37.7411-105.2519-2-12-						0-C29440	-5	-5	-5	25	-20	-15	5	-10	-15		2	43
08-37.9281-104.8833-2-12-						0-C29441	-5	-5	-5	17	-20	-15	11	-10	-15		2	15
08-37.9275-104.8858-2-12-						0-C29442	-5	-5	-5	22	-20	19	16	-10	-15		2	19
08-37.9264-104.8825-2-12-						0-C29443	-5	-5	-5	34	-20	24	7	10	-15		2	18
08-37.9264-104.9056-2-11-						0-C29444	-5	-5	-5	10	-20	22	-5	-10	-15		3	21
08-37.9094-104.8886-2-14-						0-C29445	-5	-5	-5	34	-20	16	11	-10	-15		2	22
08-37.8978-104.9031-2-15-						0-C29446	-5	-5	-5	33	-20	-15	11	-10	-15		2	37
08-37.9017-104.9533-2-12-						0-C29447	-5	-5	-5	39	-20	-15	23	-10	-15		-1	26
08-37.9028-104.9667-2-12-						0-C29448	-5	-5	-5	43	-20	-15	36	-10	-15		2	27
08-37.9219-104.9397-2-12-						0-C29449	-5	-5	-5	31	-20	17	9	-10	-15		1	32
08-37.9336-104.9272-2-14-						0-C29450	-5	-5	-5	36	-20	20	15	-10	-15		2	35
08-37.9531-104.9722-2-12-						0-C29451	-5	5	-5	30	-20	23	11	-10	-15		1	19
08-37.9656-104.9592-2-15-						0-C29452	-5	-5	-5	21	-20	-15	22	-10	-15		2	24
08-37.9719-104.9972-2-12-						0-C29453	-5	-5	-5	18	-20	-15	22	-10	-15		2	15
08-37.9864-104.9925-2-12-						0-C29454	-5	-5	-5	20	-20	-15	-5	-10	24		2	34
08-37.9494-104.9542-2-12-						0-C29455	-5	-5	-5	29	-20	-15	19	-10	-15		1	28
08-37.3797-105.3053-2-15-						0-C29456	9	-5	-5	43	-20	-15	-5	-10	32		-1	28
08-37.5106-105.3161-2-15-						0-C29457	-5	-5	-5	38	-20	20	7	-10	-15		1	17
08-37.5156-105.3083-2-15-						0-C29458	11	-5	-5	32	-20	37	-5	-10	-15		-1	41
08-37.5164-105.3025-2-12-						0-C29459	-5	-5	-5	30	-20	-15	-5	-10	-15		2	47
08-37.5333-105.2939-2-12-						0-C29460	-5	-5	-5	41	-20	-15	9	-10	-15		3	30
08-37.5522-105.2831-2-15-						0-C29461	-5	-5	-5	43	-20	-15	13	-10	-15		4	38
08-37.5619-105.2869-2-12-						0-C29462	-5	-5	-5	25	-20	-15	9	-10	-15		4	39
08-37.5600-105.2886-2-12-						0-C29463	-5	-5	-5	31	-20	19	8	-10	-15		3	42
08-37.5803-105.2664-2-12-						0-C29464	-5	-5	-5	36	-20	20	14	-10	-15		4	22
08-37.0764-105.0247-2-12-						0-C29465	-5	-5	-5	19	-20	-15	16	-10	-15		3	37
08-37.0550-105.0053-2-12-						0-C29466	-5	-5	-5	28	-20	-15	9	-10	-15		3	43
08-37.7339-105.3950-2-12-						0-C29467	-5	-5	-5	19	-20	-15	16	-10	-15		3	27
08-37.7333-105.3967-2-12-						0-C29468	-5	-5	-5	17	-20	-15	6	-10	-15		3	31
08-37.7308-105.4886-2-12-						0-C29469	-5	-5	-5	35	-20	-15	8	-10	-15		3	17
08-37.7306-105.4669-2-12-						0-C29470	-5	-5	-5	18	-20	-15	12	-10	-15		3	43
08-37.7308-105.3981-2-12-						0-C29471	-5	-5	-5	21	-20	19	13	-10	-15		3	37
08-37.7292-105.3975-2-15-						0-C29472	-5	-5	-5	26	-20	-15	6	-10	-15		4	43
08-37.7153-105.3994-2-12-						0-C29473	-5	-5	-5	25	-20	-15	-5	-10	-15		3	35
08-37.7189-105.3775-2-12-						0-C29474	-5	-5	-5	33	-20	-15	8	-10	-15		3	41
08-37.6808-105.4275-2-14-						0-C29475	-5	-5	-5	28	-20	-15	10	-10	-15		3	28
08-37.6689-105.4644-2-97-						0-C29476	-5	-5	-5	48	-20	19	9	-10	-15		3	32
08-37.6703-105.4236-2-13-						0-C29477	-5	-5	-5	42	-20	-15	6	-10	-15		3	24
08-37.6958-105.4089-2-14-						0-C29478	-5	-5	-5	10	-20	-15	7	-10	-15		3	28
08-37.6572-105.4625-2-12-						0-C29479	-5	-5	-5	60	-20	22	15	-10	-15		3	42
08-37.6739-105.4111-2-12-						0-C29480	-5	-5	-5	43	-20	-15	17	-10	-15		3	37
08-37.3750-105.3006-2-12-						0-C29481	-5	-5	-5	42	-20	16	7	-10	-15		3	35
08-37.2533-105.3133-2-12-						0-C29482	-5	-5	-5	33	-20	-15	25	-10	-15		4	38
08-37.2506-105.3639-2-15-						0-C29483	-5	-5	-5	23	-20	-15	9	-10	-15		3	24
08-37.5622-104.9825-2-11-						0-C29487	-5	-5	-5	21	-20	-15	10	-10	-15		3	14
08-37.5317-104.9983-2-99-						0-C29489	-5	-5	-5	19	-20	22	19	-10	-15		3	37
08-37.5144-104.9372-2-97-						0-C29490	-5	-5	-5	36	-20	-15	18	-10	-15		4	25
08-37.5356-104.9619-2-12-						0-C29492	-5	-5	-5	17	-20	17	11	-10	-15		2	34
08-37.5464-104.9392-2-12-						0-C29493	-5	-5	-5	20	-20	-15	11	-10	-15		3	31
08-37.5689-104.9108-2-12-						0-C29495	-5	5	-5	32	-20	-15	-5	-10	-15		3	33

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.6753-105.3200-2-12-						0-C29439	75290	-0.14	586	24140	80	-104	16.5	53	-2.3	6	2.1	42680	14.6	21120	50	0.6
08-37.7411-105.2519-2-12-						0-C29440	74970	-0.11	683	23780	102	138	15.1	58	-1.9	6	2.0	44350	15.8	21810	46	0.7
08-37.9281-104.8833-2-12-						0-C29441	63780	-0.15	578	23530	75	-81	10.7	50	4.5	5	2.2	28090	11.3	16270	44	0.6
08-37.9275-104.8858-2-12-						0-C29442	70510	-0.14	753	31980	64	-109	12.8	50	3.1	6	1.9	31930	9.5	20080	41	0.5
08-37.9264-104.8825-2-12-						0-C29443	66380	-0.15	530	31320	128	-114	21.8	113	-2.5	9	2.6	62430	18.0	15250	70	0.9
08-37.9264-104.9056-2-11-						0-C29444	57140	-0.17	634	5605	69	-69	13.5	22	6.3	9	2.3	154300	8.2	13120	28	0.5
08-37.9094-104.8886-2-14-						0-C29445	72040	-0.18	805	22950	122	286	14.9	47	3.9	9	3.5	42880	18.7	23950	74	0.9
08-37.8978-104.9011-2-15-						0-C29446	71750	-0.16	707	21280	114	-112	14.3	45	3.9	11	2.9	45090	21.8	19810	67	0.9
08-37.9017-104.9533-2-12-						0-C29447	62210	-0.21	523	30430	156	173	18.9	44	-3.4	17	4.1	66630	28.1	16230	96	1.5
08-37.9028-104.9667-2-12-						0-C29448	64280	-0.19	739	23590	174	106	14.7	57	-3.1	25	5.9	43960	16.3	17360	155	2.0
08-37.9219-104.9397-2-12-						0-C29449	65080	-0.18	719	29930	137	-117	30.2	165	-3.2	9	3.1	90350	18.9	19700	58	1.0
08-37.9336-104.9272-2-14-						0-C29450	76850	-0.14	758	16030	68	-97	12.3	39	3.4	5	2.1	30930	11.5	21810	51	0.6
08-37.9531-104.9722-2-12-						0-C29451	54120	-0.14	520	124600	58	-94	11.2	31	3.0	5	1.6	25260	8.3	13760	42	0.5
08-37.9656-104.9592-2-15-						0-C29452	73710	-0.11	863	19120	94	-99	10.6	35	4.2	5	2.0	25280	12.1	20440	48	0.5
08-37.9719-104.9972-2-12-						0-C29453	67270	-0.16	1002	14670	74	-94	17.8	40	3.1	5	2.3	39140	9.8	20600	47	0.5
08-37.9864-104.9925-2-12-						0-C29454	71970	-0.17	754	22580	132	-130	13.7	43	-2.8	17	2.8	53480	26.8	23770	83	1.4
08-37.9494-104.9542-2-12-						0-C29455	62900	-0.13	619	21610	110	-96	13.6	43	-2.1	10	2.5	40600	17.8	20750	61	0.9
08-37.3797-105.3053-2-15-						0-C29456	57270	-0.13	570	26910	176	-100	29.5	112	-2.2	9	3.4	112300	53.7	15740	68	1.2
08-37.5106-105.3161-2-15-						0-C29457	65700	-0.14	809	29490	98	-110	27.8	53	-2.4	5	2.7	70290	14.4	21360	44	0.6
08-37.5156-105.3083-2-15-						0-C29458	56800	-0.15	672	28950	78	-130	40.4	71	-2.5	6	2.6	118900	26.6	13010	44	0.8
08-37.5164-105.3025-2-12-						0-C29459	72930	-0.14	816	24200	97	-117	16.6	47	-2.4	7	2.5	42610	21.6	24850	63	0.6
08-37.5333-105.2959-2-12-						0-C29460	70190	-0.14	854	20030	136	-115	15.8	43	-2.3	6	2.8	41310	12.9	18530	57	0.7
08-37.5522-105.2811-2-15-						0-C29461	72500	-0.17	691	17140	144	-117	18.8	39	3.6	8	3.1	48230	16.9	27150	66	1.0
08-37.5619-105.2869-2-12-						0-C29462	77350	-0.16	863	21930	77	-123	11.6	37	2.7	6	2.1	32900	9.4	25770	44	0.5
08-37.5600-105.2866-2-12-						0-C29463	72700	-0.14	854	20900	96	-119	16.7	46	3.0	7	2.5	37660	14.9	24300	60	0.6
08-37.5803-105.2664-2-12-						0-C29464	71940	-0.14	696	17120	106	-108	14.3	73	-2.2	6	2.4	44680	16.4	18890	41	0.7
08-37.0764-105.0247-2-12-						0-C29465	64450	-0.13	567	9028	71	-81	10.2	40	3.2	7	1.7	28540	15.0	19680	45	0.7
08-37.0550-105.0053-2-12-						0-C29466	69070	-0.16	515	29110	48	-105	11.6	44	5.5	5	1.4	30550	6.5	21190	27	0.4
08-37.7339-105.3950-2-12-						0-C29467	80160	-0.11	802	17830	74	-102	10.8	33	-1.8	4	2.1	33990	10.1	23360	59	0.4
08-37.7308-105.3967-2-12-						0-C29468	77220	-0.12	992	20010	97	-111	10.0	34	2.6	4	2.5	29360	12.1	23050	45	0.5
08-37.7308-105.4886-2-12-						0-C29469	80690	-0.16	912	20500	93	-105	13.9	-16	3.9	4	2.5	38610	12.5	21910	58	0.4
08-37.7306-105.4669-2-12-						0-C29470	87330	-0.13	827	24080	73	-123	11.2	32	-2.2	5	2.0	30670	11.3	26900	54	0.4
08-37.7308-105.3931-2-12-						0-C29471	78130	-0.06	768	26070	88	-108	13.3	51	2.0	5	2.1	47550	19.8	22850	49	0.6
08-37.7292-105.3975-2-15-						0-C29472	76050	-0.11	821	26450	96	-112	13.4	37	2.3	5	2.5	39310	11.1	24740	44	0.5
08-37.7153-105.3954-2-12-						0-C29473	82050	-0.16	846	22180	94	-111	17.0	29	-2.6	5	2.3	43700	6.8	24260	51	0.6
08-37.7189-105.3775-2-12-						0-C29474	82280	-0.18	781	21090	72	-128	16.3	25	4.5	6	2.1	41170	5.0	19250	-16	0.5
08-37.6808-105.4275-2-14-						0-C29475	78490	-0.15	852	25730	59	-117	21.5	39	-2.5	4	2.2	53380	4.8	18900	45	0.3
08-37.6689-105.4644-2-97-						0-C29476	78400	-0.14	907	21850	87	-112	17.9	68	2.3	4	2.0	33980	10.0	20580	39	0.4
08-37.6703-105.4236-2-13-						0-C29477	71890	-0.18	575	27850	61	-112	18.8	97	-2.9	5	1.8	44560	7.9	13590	41	0.4
08-37.6958-105.4039-2-14-						0-C29478	82810	-0.13	925	32390	62	-128	13.8	22	-2.2	4	1.9	44280	5.2	19390	43	0.3
08-37.6572-105.4625-2-12-						0-C29479	81190	-0.18	581	25770	53	-133	23.1	64	-3.0	5	2.0	46870	5.9	17960	-21	0.5
08-37.6739-105.4111-2-12-						0-C29480	74180	-0.13	733	23440	97	149	15.1	67	2.6	6	2.3	34680	15.8	20940	49	0.6
08-37.3750-105.3006-2-12-						0-C29481	69740	-0.21	731	21200	126	-122	22.1	73	4.6	8	3.2	61200	32.7	21370	64	1.0
08-37.2533-105.3133-2-12-						0-C29482	76690	-0.15	907	15260	102	-130	11.8	28	-2.4	7	2.3	33750	17.2	29630	64	0.6
08-37.2506-105.3639-2-15-						0-C29483	53170	-0.09	649	15690	55	-74	8.6	26	2.5	4	1.7	27090	12.8	20580	37	0.4
08-37.5622-104.9825-2-11-						0-C29487	62680	-0.10	1106	27830	81	-96	5.9	35	-1.7	5	1.9	30540	14.5	23690	35	0.6
08-37.5317-104.9933-2-99-						0-C29489	72350	-0.14	864	20040	94	-96	11.4	50	-2.4	6	2.4	39860	15.4	24710	49	0.6
08-37.5144-104.9372-2-97-						0-C29490	86340	-0.16	1071	17450	60	-108	13.2	41	3.6	6	1.9	37110	6.9	24120	46	0.5
08-37.5356-104.9619-2-12-						0-C29492	67540	-0.11	825	21070	111	125	15.7	55	-1.9	6	2.5	68690	17.6	24960	65	0.7
08-37.5464-104.9392-2-12-						0-C29493	68440	-0.10	1057	12460	56	-92	7.4	31	-1.6	4	1.6	20230	4.2	27730	26	0.3
08-37.5689-104.9108-2-12-						0-C29495	72220	-0.14	1044	25790	67	-95	11.0	38	2.8	5	2.1	36360	9.5	23910	44	0.5

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
08-37.6753-105.3200-2-12-	0-C29439	25600	727	18410	-43	-3	12.8	6.9	-318	-1	-1	9.9	5436	97	4.9	38	0.424					
08-37.7411-105.2519-2-12-	0-C29440	25810	700	21740	61	-3	11.7	8.3	-302	-1	-1	11.5	6190	110	4.4	78	0.342					
08-37.9281-104.8833-2-12-	0-C29441	11200	383	11040	-46	-4	9.2	6.6	305	-2	-1	13.5	4036	100	3.2	61	0.273					
08-37.9275-104.8858-2-12-	0-C29442	11030	718	17050	-40	-3	9.8	5.2	-345	-1	-1	10.8	4060	105	4.4	49	0.331					
08-37.9264-104.8825-2-12-	0-C29443	21550	1098	19160	69	-4	18.9	10.8	-361	-1	-1	16.9	6544	162	7.1	153	0.282					
08-37.9264-104.9056-2-11-	0-C29444	8365	370	7051	-61	-4	9.5	7.7	-248	-2	-1	10.6	3038	57	5.5	-70	0.460					
08-37.9094-104.8886-2-14-	0-C29445	15590	748	18390	88	-4	15.5	11.3	-329	-2	-1	12.7	6177	89	5.9	150	0.308					
08-37.8978-104.9031-2-15-	0-C29446	13800	845	16040	-45	-4	14.0	7.6	-371	-1	-1	11.3	6413	114	7.1	63	0.434					
08-37.9017-104.9533-2-12-	0-C29447	18340	1191	14970	-63	-5	18.1	15.8	-460	-2	3	11.3	8287	135	12.1	-60	1.050					
08-37.9028-104.9667-2-12-	0-C29448	16660	1053	10960	-53	-5	16.1	35.0	-426	-2	3	11.5	5923	99	13.0	132	3.389					
08-37.9219-104.9397-2-12-	0-C29449	34180	1243	21490	56	-5	27.6	11.8	-364	-2	-2	16.8	6359	197	6.9	152	0.254					
08-37.9336-104.9272-2-14-	0-C29450	12280	482	15720	102	-3	9.4	6.2	-299	-1	-1	11.0	5006	82	3.7	-51	0.313					
08-37.9531-104.9722-2-12-	0-C29451	13410	849	8778	65	-3	8.1	4.8	307	-2	-1	8.9	3434	91	3.9	-57	0.694					
08-37.9656-104.9592-2-15-	0-C29452	11030	614	19620	63	-3	7.8	6.2	-300	-1	-1	12.3	4702	71	3.9	65	0.265					
08-37.9719-104.9972-2-12-	0-C29453	10610	809	13550	82	-4	9.2	6.7	-330	-2	-2	12.2	3746	63	5.1	-35	0.311					
08-37.9864-104.9925-2-12-	0-C29454	15480	1037	20600	-50	-4	16.4	12.1	-426	-2	2	18.8	6848	114	11.5	186	0.353					
08-37.9494-104.9542-2-12-	0-C29455	12990	764	16260	-39	-3	12.0	9.6	-306	-1	-1	14.4	5748	97	7.5	-49	0.324					
08-37.3797-105.3053-2-15-	0-C29456	21170	1097	16490	-43	-3	16.2	12.3	-335	-1	-1	16.3	9821	286	8.7	-48	0.450					
08-37.5106-105.3161-2-15-	0-C29457	19040	984	23820	-45	-4	15.9	6.6	475	-2	-1	6.7	6142	156	4.6	111	0.390					
08-37.5156-105.3083-2-15-	0-C29458	18520	1341	19580	70	-4	14.6	4.5	-419	-1	1	7.6	10570	315	5.5	148	0.603					
08-37.5164-105.3025-2-12-	0-C29459	17730	928	20420	72	-4	13.7	7.3	-361	-2	-1	9.5	5688	109	6.8	133	0.609					
08-37.5333-105.2939-2-12-	0-C29460	17130	1023	19330	84	-4	12.6	10.9	-385	-1	-1	13.3	5997	104	4.5	134	0.318					
08-37.5522-105.2831-2-15-	0-C29461	17580	1318	18530	-48	-4	15.9	11.3	-400	-2	-1	13.2	5254	84	6.0	148	0.374					
08-37.5619-105.2869-2-12-	0-C29462	17810	676	20770	-44	-4	10.4	4.0	-376	-2	2	7.4	5046	86	3.3	-37	0.558					
08-37.5600-105.2886-2-12-	0-C29463	19550	879	21280	-41	-4	12.7	7.1	-353	-1	-1	8.6	5414	84	6.8	136	0.640					
08-37.5803-105.2664-2-12-	0-C29464	22570	811	19630	-39	-3	11.6	7.5	511	-1	-1	9.9	5938	123	7.2	69	0.494					
08-37.0764-105.0247-2-12-	0-C29465	7859	430	15150	77	-3	8.7	6.5	-240	-1	-1	11.1	3291	65	5.3	84	0.405					
08-37.0550-105.0053-2-12-	0-C29466	13530	1022	8976	-48	-4	8.5	3.3	-425	-2	-1	9.3	3698	94	-3.2	92	0.373					
08-37.7339-105.3950-2-12-	0-C29467	11960	528	24090	69	-3	8.8	7.2	419	-1	-1	9.3	4190	88	3.5	-40	0.401					
08-37.7333-105.3967-2-12-	0-C29468	12580	508	23580	-36	-3	7.7	6.5	-309	-1	-1	10.5	4331	85	3.6	95	0.323					
08-37.7308-105.4886-2-12-	0-C29469	16300	424	22740	86	-4	10.1	7.4	423	-2	-1	11.7	4754	89	5.1	138	0.437					
08-37.7306-105.4669-2-12-	0-C29470	8528	559	25470	-39	-3	8.1	6.5	738	-1	-1	10.9	4784	70	-2.6	79	0.404					
08-37.7308-105.3981-2-12-	0-C29471	12440	702	22930	65	-2	10.7	7.8	558	-1	-1	11.4	6603	115	4.3	112	0.360					
08-37.7292-105.3975-2-15-	0-C29472	18600	1055	20110	60	-3	9.2	7.4	-364	-1	-1	11.9	4313	93	4.3	87	0.289					
08-37.7153-105.3994-2-12-	0-C29473	15640	935	20230	-45	-4	13.2	7.5	666	-1	-1	9.2	4936	86	-3.3	129	0.339					
08-37.7189-105.3775-2-12-	0-C29474	15850	1327	14840	-52	-5	13.3	5.6	-497	-2	-1	7.9	5776	93	3.3	-72	0.465					
08-37.6808-105.4275-2-14-	0-C29475	12510	1071	18690	-44	-4	12.1	5.2	491	-1	-1	7.1	6259	135	2.9	94	0.510					
08-37.6689-105.4644-2-97-	0-C29476	14640	832	17630	-42	-4	11.3	6.0	527	-1	-1	7.9	5844	86	4.2	128	0.609					
08-37.6703-105.4236-2-13-	0-C29477	21450	792	20450	-52	-4	14.8	5.2	510	-2	-1	6.2	3891	100	-3.5	-19	0.552					
08-37.6958-105.4089-2-14-	0-C29478	9632	897	24160	-43	-3	9.3	4.7	724	-1	-1	5.9	6227	104	3.3	96	0.415					
08-37.6572-105.4625-2-12-	0-C29479	26150	1169	17160	-55	-5	13.0	3.3	-463	-3	-1	5.4	5027	107	-3.5	-49	1.396					
08-37.6739-105.4111-2-12-	0-C29480	18580	645	19750	-36	-3	11.7	7.5	467	-1	-1	9.5	5362	97	5.1	90	0.733					
08-37.3750-105.3006-2-12-	0-C29481	19960	1179	17840	66	-5	14.3	11.4	-426	-2	-2	12.5	5605	123	6.5	122	1.162					
08-37.2533-105.3133-2-12-	0-C29482	13100	824	22960	-44	-4	9.0	5.9	-409	-1	-1	10.3	5452	78	5.9	166	1.160					
08-37.2506-105.3639-2-15-	0-C29483	9925	396	14220	46	-2	5.6	4.5	-217	-1	-1	7.4	3283	63	4.2	-38	0.396					
08-37.5622-104.9825-2-11-	0-C29487	6217	472	21090	-35	-2	5.8	5.6	-271	-1	-1	7.3	4262	72	4.0	89	0.401					
08-37.5317-104.9983-2-99-	0-C29489	12690	529	20250	67	-3	10.9	7.2	382	-1	-1	11.6	4494	81	5.4	112	0.283					
08-37.5144-104.9372-2-97-	0-C29490	19020	618	15050	-49	-4	11.4	5.1	-369	-2	-1	9.6	4274	90	3.4	-88	0.318					
08-37.5356-104.9619-2-12-	0-C29492	11690	774	20060	58	-3	10.1	7.8	-294	1	-1	12.3	5889	163	5.8	74	0.334					
08-37.5464-104.9392-2-12-	0-C29493	11170	390	19770	64	-2	6.3	4.2	-255	-1	-1	5.4	2868	47	-2.3	41	0.437					
08-37.5689-104.9108-2-12-	0-C29495	14980	592	18840	87	-3	9.8	6.1	-280	-1	-1	8.3	3864	79	4.3	77	0.341					

[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.5644-104.9128-2-12-			0-C29496	-5	-5	-5	32	-20	-15	15	-10	15	2	10				
08-37.7575-105.2956-2-99-			0-C29498	-5	-5	-5	14	-20	21	12	-10	-15	3	36				
08-37.7606-105.3464-2-11-			0-C29499	-5	-5	-5	27	-20	-15	12	-10	-15	3	34				
08-37.7667-105.3231-2-12-			0-C29500	-5	-5	-5	27	-20	15	-5	-10	-15	4	62				
08-37.7700-105.3458-2-15-			0-C29502	-5	-5	-5	28	-20	27	13	-10	-15	3	46				
08-37.7756-105.2967-2-12-			0-C29503	-5	-5	-5	27	-20	17	10	-10	-15	3	34				
08-37.8011-105.3053-2-12-			0-C29504	-5	-5	-5	28	-20	18	-5	-10	-15	3	49				
08-37.8189-105.3353-2-12-			0-C29505	-5	-5	-5	38	-20	-15	6	-10	-15	4	28				
08-37.8331-105.3528-2-97-			0-C29506	-5	-5	-5	24	-20	-15	8	-10	-15	3	34				
08-37.8408-105.3531-2-12-			0-C29507	-5	-5	-5	25	-20	15	9	-10	-15	3	32				
08-37.8689-105.3194-2-97-			0-C29509	-5	-5	-5	35	-20	-15	9	-10	-15	4	42				
08-37.8531-105.3133-2-15-			0-C29510	-5	6	-5	31	-20	28	8	-10	-15	3	24				
08-37.8306-105.3075-2-12-			0-C29511	-5	-5	-5	20	-20	27	-5	-10	-15	3	25				
08-37.8278-105.2978-2-15-			0-C29512	-5	-5	-5	35	-20	19	10	-10	-15	3	18				
08-37.8167-105.2758-2-15-			0-C29513	8	-5	7	31	-20	-15	-5	13	-15	2	14				
08-37.8136-105.2767-2-15-			0-C29514	-5	-5	-5	31	-20	17	11	-10	-15	3	26				
08-37.2731-105.3683-2-15-			0-C29515	-5	-5	-5	18	-20	-15	10	-10	-15	3	20				
08-37.4592-105.3617-2-14-			0-C29516	-5	-5	-5	34	-20	19	-5	-10	-15	3	46				
08-37.9661-105.3942-2-12-			0-C29518	-5	-5	-5	25	-20	-15	8	-10	-15	4	36				
08-37.9272-105.4372-2-11-			0-C29519	-5	-5	-5	17	-20	-15	9	-10	-15	4	33				
08-37.9361-105.4375-2-11-			0-C29520	-5	-5	-5	17	-20	-15	13	-10	-15	3	36				
08-37.9178-105.4317-2-12-			0-C29521	-5	-5	-5	28	-20	-15	11	-10	-15	3	32				
08-37.9294-105.3944-2-14-			0-C29522	-5	-5	-5	31	-20	-15	10	-10	-15	3	37				
08-37.9314-105.3778-2-14-			0-C29523	-5	-5	-5	22	-20	-15	11	-10	-15	3	38				
08-37.9953-105.4369-2-15-			0-C29524	-5	-5	-5	25	-20	16	7	-10	-15	3	28				
08-37.9953-105.4344-2-12-			0-C29525	-5	-5	-5	22	-20	-15	-5	-10	-15	3	43				
08-37.9708-105.4744-2-12-			0-C29526	-5	-5	-5	31	-20	-15	16	-10	16	3	45				
08-37.9647-105.4514-2-12-			0-C29527	-5	-5	-5	29	-20	-15	8	-10	-15	3	39				
08-37.9461-105.4517-2-12-			0-C29528	-5	-5	-5	24	-20	34	5	-10	-15	3	47				
08-37.9456-105.4506-2-12-			0-C29529	-5	-5	-5	21	-20	-15	9	-10	-15	3	32				
08-37.9044-105.3831-2-15-			0-C29530	-5	-5	-5	30	-20	-15	-5	-10	-15	3	46				
08-37.8961-105.4139-2-11-			0-C29531	-5	-5	-5	21	-20	-15	5	-10	-15	3	49				
08-37.8892-105.3942-2-12-			0-C29532	-5	-5	-5	20	-20	-15	8	-10	-15	3	39				
08-37.8758-105.4025-2-12-			0-C29533	-5	-5	-5	17	-20	-15	-5	-10	-15	3	44				
08-37.6819-104.9986-2-97-			0-C29534	-5	-5	-5	27	-20	-15	6	-10	-15	3	29				
08-37.6819-104.9967-2-11-			0-C29535	-5	-5	-5	21	-20	-15	8	-10	-15	3	42				
08-37.1144-105.2700-2-12-			0-C29536	-5	6	-5	11	-20	-15	10	-10	-15	4	30				
08-37.0872-105.2686-2-12-			0-C29537	-5	-5	-5	30	-20	-15	14	-10	-15	3	35				
08-37.0583-105.2744-2-12-			0-C29538	-5	-5	-5	23	-20	15	13	10	-15	5	50				
08-37.1056-105.3719-2-12-			0-C29539	-5	-5	-5	22	-20	-15	14	-10	-15	4	39				
08-37.0806-105.3603-2-12-			0-C29540	-5	-5	-5	15	-20	-15	10	-10	-15	5	40				
08-37.0722-105.3736-2-15-			0-C29541	-5	-5	-5	30	-20	-15	10	-10	-15	4	41				
08-37.0544-105.3928-2-15-			0-C29542	-5	-5	-5	27	-20	-15	13	-10	-15	5	41				
08-37.0064-105.4144-2-15-			0-C29543	-5	-5	-5	32	-20	16	15	-10	-15	5	42				
08-37.0925-105.3833-2-15-			0-C29544	-5	-5	-5	16	-20	24	8	11	-15	5	35				
08-37.1233-105.3978-2-12-			0-C29545	-5	-5	-5	22	-20	-15	-5	-10	-15	4	54				
08-37.0797-105.3989-2-15-			0-C29546	-5	-5	-5	31	-20	-15	19	-10	-15	4	45				
08-37.8853-105.3389-2-12-			0-C29547	-5	-5	-5	10	-20	-15	-5	10	-15	3	40				
08-37.8814-105.3322-2-15-			0-C29548	-5	-5	-5	26	-20	-15	10	-10	-15	3	44				
08-37.8883-105.3133-2-15-			0-C29549	-5	-5	-5	20	-20	-15	8	-10	-15	3	33				
08-37.9922-105.3628-2-15-			0-C29550	12	-5	-5	18	-20	57	-5	-10	-15	2	23				

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS. SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.5644-104.9128-2-12-	0-029496	72520	-0.17	765	49230	55	-126	11.5	53	-2.9	6	1.6	33210	7.1	21420	44	0.6					
08-37.7575-105.2956-2-99-	0-029498	40360	-0.12	432	168900	44	-77	7.4	24	3.4	3	1.0	18310	5.1	12440	17	-0.2					
08-37.7606-105.3454-2-11-	0-029499	67950	-0.12	796	50800	94	-99	10.4	43	2.1	5	1.9	34030	9.9	20890	46	0.5					
08-37.7667-105.3231-2-12-	0-029500	77460	-0.16	643	45060	89	-86	14.0	65	5.7	5	2.3	45430	8.6	21440	45	0.5					
08-37.7700-105.3458-2-15-	0-029502	78940	-0.12	856	26330	60	147	12.2	49	2.9	5	1.9	33560	7.9	26620	41	0.4					
08-37.7756-105.2967-2-12-	0-029503	57600	-0.12	700	53620	145	-102	17.3	71	-2.1	9	3.1	74560	35.0	17920	77	0.9					
08-37.8011-105.3053-2-12-	0-029504	69510	-0.13	893	29500	137	-106	16.4	60	-2.2	7	2.6	62880	17.5	21180	48	0.7					
08-37.8189-105.3553-2-12-	0-029505	78060	-0.15	957	22940	108	190	15.4	56	2.7	6	2.9	47190	15.0	20390	51	0.6					
08-37.8331-105.3528-2-97-	0-029506	75710	-0.12	926	34570	64	-108	11.0	43	-2.2	5	2.0	32860	8.0	24830	50	0.4					
08-37.8408-105.3531-2-12-	0-029507	67440	-0.06	749	40970	82	-92	7.7	36	-1.7	5	1.7	32470	11.6	18950	40	0.5					
08-37.8689-105.3194-2-97-	0-029509	77520	-0.12	936	19950	91	-93	12.6	44	2.8	5	2.2	34930	10.6	25160	42	0.4					
08-37.8531-105.3133-2-15-	0-029510	67340	-0.14	959	18620	138	-93	22.7	81	-2.4	7	2.7	104200	23.9	21580	62	0.7					
08-37.8306-105.3075-2-12-	0-029511	62720	-0.14	1100	36970	141	-114	16.4	61	-2.5	10	4.2	58510	15.9	13240	77	0.9					
08-37.8278-105.2978-2-15-	0-029512	72400	-0.10	1179	17440	59	-84	11.1	38	-1.7	5	1.6	32270	10.9	30800	33	0.4					
08-37.8167-105.2758-2-15-	0-029513	46270	-0.12	1580	17700	108	-84	19.4	114	-2.0	7	2.3	162700	36.3	22270	54	1.1					
08-37.8136-105.2767-2-15-	0-029514	75570	-0.15	1199	15100	98	-87	17.1	70	3.8	6	2.4	54850	15.3	30790	60	0.6					
08-37.2731-105.3633-2-15-	0-029515	52960	-0.10	755	14340	49	-86	9.8	33	1.8	4	1.5	26830	13.1	19950	34	0.4					
08-37.4592-105.3617-2-14-	0-029516	58780	-0.12	583	79890	44	259	10.5	33	-2.1	4	1.5	26680	5.6	14840	-16	0.4					
08-37.9661-105.3942-2-12-	0-029518	60340	-0.11	776	10930	82	-106	9.6	54	2.1	7	1.9	36480	16.6	24130	39	0.9					
08-37.9272-105.4372-2-11-	0-029519	63300	-0.12	761	10910	72	-96	8.3	40	-2.1	7	2.1	39230	17.1	22850	33	0.9					
08-37.9361-105.4375-2-11-	0-029520	81290	-0.12	939	18750	60	-117	7.2	29	-2.1	4	2.1	24390	7.9	20830	37	0.5					
08-37.9178-105.4317-2-12-	0-029521	81050	-0.13	819	22890	75	-110	10.7	40	-2.2	6	2.4	32500	11.4	19060	43	0.5					
08-37.9294-105.3944-2-14-	0-029522	81850	-0.11	943	18240	81	-100	8.9	27	3.1	4	2.3	28650	8.2	24520	34	0.4					
08-37.9314-105.3778-2-14-	0-029523	80890	-0.13	933	19710	85	-98	12.6	28	3.0	4	2.5	35850	8.5	22820	60	0.5					
08-37.9953-105.4569-2-15-	0-029524	73440	-0.13	1041	18440	70	-118	10.2	38	-2.4	6	2.4	42620	12.7	24390	45	0.6					
08-37.9953-105.4544-2-12-	0-029525	66560	-0.13	768	20720	97	-108	16.2	98	2.4	7	3.3	91740	31.2	14390	46	0.9					
08-37.9708-105.4744-2-12-	0-029526	72610	-0.13	837	17140	95	-104	13.5	66	2.2	6	2.3	46860	11.1	19280	35	0.6					
08-37.9647-105.4514-2-12-	0-029527	74570	-0.14	993	18920	93	-111	12.4	48	-2.3	5	2.8	41580	9.9	22120	54	0.5					
08-37.9461-105.4517-2-12-	0-029528	72950	-0.14	894	18630	94	-123	10.7	70	-2.4	7	2.6	51680	16.1	20960	47	0.6					
08-37.9456-105.4506-2-12-	0-029529	74230	-0.12	810	21120	85	-115	12.9	39	-2.1	6	2.5	40410	14.7	19530	41	0.6					
08-37.9044-105.3831-2-15-	0-029530	78230	-0.10	1064	17960	74	-101	7.3	20	2.3	3	1.9	21330	5.0	26220	38	0.3					
08-37.8961-105.4139-2-11-	0-029531	80090	-0.14	1086	25290	90	-104	12.6	28	-2.3	5	2.5	33250	11.6	23450	51	0.4					
08-37.8892-105.3942-2-12-	0-029532	81630	-0.13	955	21480	66	193	10.6	34	-2.3	6	2.3	39510	9.4	22500	46	0.5					
08-37.8758-105.4025-2-12-	0-029533	77860	-0.13	784	23820	85	-106	15.8	53	-2.2	7	2.6	65540	18.2	19040	47	0.6					
08-37.6819-104.9936-2-97-	0-029534	74310	-0.10	931	27320	77	-91	10.4	37	1.7	5	1.9	29570	8.5	24820	37	0.4					
08-37.6819-104.9957-2-11-	0-029535	71130	-0.14	831	39940	85	227	15.6	49	-2.5	5	2.5	42530	12.8	21760	45	0.8					
08-37.1144-105.2700-2-12-	0-029536	68830	-0.13	656	12150	61	-127	3.9	-14	3.8	8	1.9	16210	20.2	25350	56	0.9					
08-37.0872-105.2636-2-12-	0-029537	72610	-0.14	447	21620	65	-118	16.1	59	5.0	10	2.0	37370	11.3	16820	56	0.9					
08-37.0583-105.2744-2-12-	0-029538	66320	-0.14	777	17340	118	-119	13.3	79	2.8	16	2.5	37470	22.2	26900	78	2.0					
08-37.1056-105.3719-2-12-	0-029539	63310	-0.13	667	13580	75	-100	11.0	44	3.0	7	2.3	30030	17.9	23070	50	1.2					
08-37.0806-105.3603-2-12-	0-029540	66870	-0.12	706	13490	82	-107	11.0	56	3.5	10	2.0	29210	17.7	25350	52	1.0					
08-37.0722-105.3736-2-15-	0-029541	68720	-0.11	675	13490	80	-92	13.1	47	4.6	6	2.0	35160	14.9	20570	42	0.6					
08-37.0544-105.3528-2-15-	0-029542	56120	-0.10	675	10720	90	-89	10.2	61	2.7	9	1.8	25980	22.3	23060	41	1.2					
08-37.0064-105.4144-2-15-	0-029543	73240	-0.25	644	12180	96	-83	10.0	50	7.4	13	2.4	30590	11.8	26200	97	1.2					
08-37.0925-105.3833-2-15-	0-029544	61300	-0.20	727	13420	76	-103	12.6	70	2.9	10	2.1	45990	29.3	21790	73	1.5					
08-37.1233-105.3978-2-12-	0-029545	66470	-0.19	595	13380	69	-108	10.7	35	3.1	7	1.6	30670	12.0	24600	58	0.7					
08-37.0797-105.3939-2-15-	0-029546	75090	-0.20	723	11010	115	-93	13.9	43	7.4	8	2.0	32590	6.1	23320	-20	0.6					
08-37.8853-105.3239-2-12-	0-029547	74630	-0.24	1032	23390	116	-106	17.6	71	-2.5	8	3.7	71620	27.5	21050	70	1.0					
08-37.8814-105.3222-2-15-	0-029548	73270	-0.20	1032	26460	67	-111	15.0	49	-2.1	5	2.1	48950	10.7	23300	-20	0.4					
08-37.8883-105.3133-2-15-	0-029549	76700	-0.16	935	20550	68	-101	13.2	37	-1.7	3	2.0	38110	8.7	22150	45	0.3					
08-37.9922-105.3628-2-15-	0-029550	51450	-0.20	483	16570	89	-102	33.6	147	-2.0	7	2.8	190500	28.9	14500	60	0.9					

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APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						DOE LAB SAMPLE TYPE REPLICATE	DOE SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE			DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
									Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.9964-105.3381-2-12-						0-C29552	-5	-5	-5	22	-20	-15	10	-10	-15		3	31		
08-37.9928-105.3375-2-15-						0-C29553	-5	-5	-5	19	-20	-15	-5	-10	27		3	29		
08-37.9719-105.2650-2-13-						0-C29554	-5	-5	-5	24	-20	-15	8	-10	-15		3	20		
08-37.9700-105.2642-2-15-						0-C29555	-5	-5	-5	22	-20	-15	17	-10	-15		4	47		
08-37.9900-105.2772-2-12-						0-C29556	-5	-5	-5	17	-20	-15	10	-10	-15		3	45		
08-37.9719-105.3369-2-14-						0-C29557	-5	-5	-5	24	-20	-15	9	-10	-15		3	35		
08-37.9742-105.3364-2-15-						0-C29558	-5	-5	-5	16	-20	-15	11	-10	-15		4	41		
08-37.9714-105.3442-2-15-						0-C29559	-5	-5	-5	29	-20	-15	12	-10	-15		3	29		
08-37.9622-105.3239-2-15-						0-C29560	-5	-5	-5	32	-20	-15	10	-10	-15		3	33		
08-37.9044-105.3319-2-15-						0-C29563	-5	-5	-5	24	-20	29	7	-10	-15		2	22		
08-37.9044-105.3353-2-12-						0-C29564	-5	-5	-5	25	-20	15	10	-10	-15		3	27		
08-37.8983-105.3272-2-15-						0-C29565	-5	-5	-5	27	-20	27	10	-10	-15		3	36		
08-37.8978-105.3325-2-12-						0-C29566	-5	-5	-5	29	-20	-15	-5	-10	-15		2	27		
08-37.2106-105.0206-2-12-						0-C29567	-5	-5	-5	23	-20	24	10	-10	-15		3	42		
08-37.2078-105.0000-2-12-						0-C29568	-5	-5	-5	45	-20	23	9	-10	-15		3	30		
08-37.1975-104.9731-2-12-						0-C29569	-5	-5	-5	31	-20	-15	13	-10	-15		3	50		
08-37.2303-104.9953-2-12-						0-C29571	-5	-5	-5	32	-20	-15	12	-10	-15		3	30		
08-37.2303-104.9933-2-12-						0-C29572	-5	-5	-5	21	-20	-15	22	-10	-15		3	26		
08-37.1625-104.9433-2-12-						0-C29573	-5	-5	-5	23	-20	-15	13	-10	-15		3	44		
08-37.1706-104.9542-2-15-						0-C29574	-5	-5	-5	25	-20	-15	7	-10	-15		3	37		
08-37.1803-104.9281-2-11-						0-C29575	-5	-5	-5	35	-20	37	12	-10	-15		4	58		
08-37.1556-104.9203-2-15-						0-C29576	-5	-5	-5	37	-20	23	14	-10	-15		3	37		
08-37.1950-104.8842-2-11-						0-C29577	-5	-5	-5	25	-20	-15	13	-10	-15		3	38		
08-37.1975-104.8775-2-12-						0-C29578	-5	-5	-5	28	-20	15	14	-10	-15		3	29		
08-37.2044-104.8836-2-15-						0-C29579	-5	-5	-5	22	-20	-15	8	-10	-15		3	21		
08-37.2039-104.8861-2-15-						0-C29580	-5	-5	-5	25	-20	16	13	-10	-15		3	32		
08-37.2442-104.8956-2-96-						0-C29581	-5	-5	-5	23	-20	-15	12	-10	-15		3	27		
08-37.2339-104.8919-2-13-						0-C29582	-5	-5	-5	26	-20	20	13	-10	-15		4	42		
08-37.2317-104.9214-2-15-						0-C29583	-5	-5	-5	15	-20	-15	-5	-10	-15		3	19		
08-37.2303-104.9208-2-15-						0-C29584	-5	-5	-5	16	-20	-15	8	-10	-15		3	18		
08-37.2444-104.9450-2-11-						0-C29585	-5	-5	-5	12	-20	-15	7	-10	-15		3	18		
08-37.2467-104.9533-2-12-						0-C29586	-5	-5	-5	19	-20	16	13	-10	-15		3	26		
08-37.2389-105.0517-2-12-						0-C29587	-5	-5	-5	10	-20	-15	11	-10	-15		3	28		
08-37.2494-105.1050-2-12-						0-C29588	-5	-5	-5	13	-20	-15	10	10	-15		3	41		
08-37.2500-105.1042-2-12-						0-C29589	-5	-5	-5	23	-20	15	10	-10	-15		-1	151		
08-37.2061-105.0500-2-12-						0-C29591	-5	-5	-5	29	-20	18	14	-10	-15		3	37		
08-37.2003-105.0481-2-13-						0-C29592	-5	-5	-5	26	-20	15	14	-10	-15		3	49		
08-37.1564-105.0414-2-12-						0-C29593	-5	-5	-5	24	-20	-15	12	-10	-15		-1	128		
08-37.1522-105.0450-2-12-						0-C29594	-5	-5	-5	31	-20	26	18	-10	-15		3	45		
08-37.1383-105.0494-2-12-						0-C29595	-5	-5	-5	29	-20	-15	13	-10	-15		3	32		
08-37.1661-105.1019-2-11-						0-C29596	-5	-5	-5	38	-20	16	12	-10	-15		3	45		
08-37.0444-105.4153-2-15-						0-C29597	-5	-5	-5	34	-20	-15	9	-10	-15		5	41		
08-37.0464-105.4228-2-14-						0-C29598	-5	-5	-5	13	-20	21	10	-10	-15		5	51		
08-37.0197-105.4236-2-15-						0-C29599	-5	-5	-5	29	-20	-15	19	-10	-15		5	39		
08-37.0039-105.4764-2-15-						0-C29600	-5	-5	-5	27	-20	-15	13	-10	-15		3	36		
08-37.0042-105.4778-2-15-						0-C29601	-5	-5	-5	21	-20	21	8	-10	-15		3	48		
08-37.1756-105.3169-2-12-						0-C29602	-5	-5	-5	33	-20	-15	11	-10	-15		3	35		
08-37.1736-105.2825-2-12-						0-C29603	-5	-5	-5	22	-20	-15	6	-10	-15		3	37		
08-37.1258-105.1039-2-12-						0-C29605	5	-5	-5	32	-20	15	-5	15	-15		3	36		
08-37.1311-105.0481-2-12-						0-C29606	-5	-5	-5	20	-20	-15	6	-10	-15		3	40		
08-37.1325-105.0508-2-15-						0-C29607	-5	-5	-5	26	-20	-15	7	-10	-15		3	56		

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.9964-105.3381-2-12-						0-C29552	74820	-0.21	963	19190	91	-103	16.3	49	3.7	6	2.5	51480	13.2	23470	62	0.6
08-37.9928-105.3375-2-15-						0-C29553	67400	-0.21	781	21680	82	-118	20.6	76	-2.2	5	2.4	91740	15.1	19220	-16	0.5
08-37.9719-105.2650-2-13-						0-C29554	77330	-0.16	724	24820	67	-102	12.3	45	2.2	4	2.1	35930	14.2	21870	56	0.4
08-37.9700-105.2642-2-15-						0-C29555	78900	-0.16	879	20670	68	155	10.8	43	4.5	4	1.6	28160	6.5	25610	-16	0.3
08-37.9900-105.2722-2-12-						0-C29556	77780	-0.23	935	21980	91	125	15.4	47	4.1	5	2.5	39670	10.5	29040	49	0.5
08-37.9719-105.3369-2-14-						0-C29557	77750	-0.20	963	17750	62	-109	10.9	26	3.2	5	2.1	29100	7.6	23400	45	0.4
08-37.9742-105.3364-2-15-						0-C29558	72800	-0.17	756	19770	61	-102	13.1	44	3.1	5	2.1	37470	7.7	22350	34	0.5
08-37.9714-105.3442-2-15-						0-C29559	74370	-0.18	988	16210	106	-105	13.5	46	3.2	5	2.1	32180	10.3	28160	49	0.5
08-37.9622-105.3239-2-15-						0-C29560	73850	-0.24	926	14520	107	132	16.0	40	5.3	5	2.5	38250	10.2	23270	-24	0.5
08-37.9044-105.3319-2-15-						0-C29563	69340	-0.21	970	20810	71	-112	20.2	64	-2.2	5	2.3	85340	13.6	17820	52	0.5
08-37.9044-105.3353-2-12-						0-C29564	78340	-0.17	958	21760	71	-101	10.7	32	-1.8	4	2.0	32560	8.4	26950	47	0.3
08-37.8983-105.3272-2-15-						0-C29565	72380	-0.16	939	26290	100	-100	16.6	57	2.4	5	2.3	55770	12.2	21360	39	0.4
08-37.8978-105.3325-2-12-						0-C29566	61790	-0.24	802	46790	90	-114	27.3	76	-2.6	5	2.6	88480	14.9	18990	53	0.5
08-37.2106-105.0206-2-12-						0-C29567	68940	-0.21	692	8385	47	-114	12.4	51	3.3	6	1.7	32050	9.6	22920	-23	0.4
08-37.2078-105.0600-2-12-						0-C29568	71120	-0.20	604	9364	49	-124	14.0	34	3.5	5	1.6	28180	7.6	19720	-25	0.5
08-37.1975-104.9731-2-12-						0-C29569	67810	-0.16	687	7548	62	-92	10.4	43	3.0	5	1.6	26540	10.9	24480	-14	0.6
08-37.2303-104.5953-2-12-						0-C29571	74670	-0.23	968	8115	94	-90	14.2	54	3.3	7	2.1	33930	12.3	23340	45	0.8
08-37.2303-104.9933-2-12-						0-C29572	70470	-0.19	800	10350	49	-98	11.5	41	3.4	5	1.5	27420	10.1	20210	-17	0.6
08-37.1625-104.9433-2-12-						0-C29573	67080	-0.05	794	7297	69	-78	7.3	37	2.0	6	1.5	25060	17.9	25510	36	0.8
08-37.1706-104.9542-2-15-						0-C29574	66460	-0.15	883	5294	69	-67	10.4	38	2.7	6	1.6	24520	11.9	26250	31	0.6
08-37.1803-104.5281-2-11-						0-C29575	86980	-0.28	842	6907	105	-81	22.0	77	5.3	8	2.4	37920	10.9	24250	65	0.7
08-37.1556-104.5203-2-15-						0-C29576	73030	-0.19	869	5290	49	-80	12.1	39	3.7	5	1.6	25090	7.5	26180	46	0.4
08-37.1950-104.8342-2-11-						0-C29577	78420	-0.19	944	15880	70	-92	13.9	40	3.7	6	1.8	27730	9.3	27220	-20	0.6
08-37.1975-104.8775-2-12-						0-C29578	67740	-0.16	1042	13550	74	-92	9.1	40	3.2	5	1.5	20110	9.5	29820	46	0.6
08-37.2044-104.8836-2-15-						0-C29579	68030	-0.19	971	8158	80	-81	12.9	42	3.6	7	2.1	27620	18.4	29780	64	0.9
08-37.2039-104.8861-2-15-						0-C29580	69340	-0.19	1172	7554	58	-92	10.9	38	1.6	7	1.7	25730	15.2	29710	46	0.7
08-37.2442-104.8956-2-96-						0-C29581	69960	-0.14	994	8318	49	-78	8.5	26	2.1	5	1.8	21590	14.6	32820	35	0.6
08-37.2339-104.8919-2-13-						0-C29582	85980	-0.21	960	10280	88	-82	13.9	61	3.1	7	2.0	28260	8.2	30440	-21	0.6
08-37.2317-104.9214-2-15-						0-C29583	63350	-0.15	1166	5793	46	-75	8.1	26	-1.5	4	1.3	16760	8.1	32000	-21	0.4
08-37.2303-104.9208-2-15-						0-C29584	64800	-0.16	1088	6244	54	-94	4.6	21	1.4	7	1.5	18310	17.5	32600	42	0.8
08-37.2444-104.9450-2-11-						0-C29585	68920	-0.14	905	6392	47	-86	8.1	13	-1.3	5	1.3	16970	11.8	32330	-18	0.6
08-37.2467-104.9533-2-12-						0-C29586	71990	-0.16	1136	7683	67	-87	10.0	38	1.7	5	1.7	18100	11.4	35120	34	0.8
08-37.2389-105.0517-2-12-						0-C29587	66740	-0.18	625	7620	50	-96	7.2	38	-1.8	5	1.6	26290	12.1	26110	-16	0.6
08-37.2494-105.1150-2-12-						0-C29588	70490	-0.22	692	11440	49	-126	11.2	40	2.4	6	1.3	33180	7.2	22290	-21	0.6
08-37.2500-105.1142-2-12-						0-C29589	71990	-0.20	532	12190	58	-113	14.1	49	3.4	6	1.6	33980	8.5	23800	38	0.6
08-37.2061-105.0500-2-12-						0-C29591	67290	-0.22	666	13140	95	-111	12.8	64	-2.2	9	1.9	33660	11.6	26910	49	0.8
08-37.2003-105.0481-2-13-						0-C29592	66560	-0.22	569	10770	70	-98	10.7	43	-2.2	7	1.7	33000	15.0	25290	-24	0.6
08-37.1564-105.0414-2-12-						0-C29593	68430	-0.25	587	12070	62	-118	11.4	61	2.9	8	1.8	44480	14.8	20400	-29	0.8
08-37.1522-105.0450-2-12-						0-C29594	69310	-0.19	623	11670	49	-111	10.5	43	-2.0	5	1.5	28190	8.1	22830	-21	0.4
08-37.1383-105.0494-2-12-						0-C29595	66860	-0.19	658	12990	70	-105	10.7	43	2.5	6	1.7	31300	10.7	25290	-21	0.8
08-37.1661-105.1219-2-11-						0-C29596	77470	-0.28	690	12140	79	-113	18.3	84	-2.9	7	2.2	40250	8.9	23600	-29	0.8
08-37.0444-105.4153-2-15-						0-C29597	66890	-0.22	752	21930	79	-100	7.9	39	4.8	11	2.2	26100	10.7	23970	57	0.9
08-37.0464-105.4228-2-14-						0-C29598	72110	-0.17	726	19220	92	-101	10.3	35	5.0	9	2.2	26820	11.0	25500	53	0.8
08-37.0197-105.4236-2-15-						0-C29599	61290	-0.16	626	11930	115	-86	8.8	25	5.3	12	2.2	20190	13.0	22350	71	1.1
08-37.0039-105.4764-2-15-						0-C29600	70360	-0.20	875	30670	75	-92	15.5	43	4.5	5	2.0	33300	12.4	17810	64	0.7
08-37.0042-105.4778-2-15-						0-C29601	71800	-0.20	815	20290	64	-101	16.2	55	3.7	6	1.7	32350	9.5	17180	-21	0.6
08-37.1756-105.3169-2-12-						0-C29602	68230	-0.16	628	19480	66	-95	12.2	44	2.9	6	1.7	29490	13.2	19710	53	0.5
08-37.1736-105.2325-2-12-						0-C29603	65890	0.35	755	15930	92	-105	9.5	37	2.2	7	2.1	27380	16.0	22890	42	0.7
08-37.1258-105.1039-2-12-						0-C29605	61100	-0.28	511	24990	106	-97	27.7	144	-3.1	9	3.0	139700	43.2	17330	85	1.5
08-37.1311-105.0481-2-12-						0-C29606	66980	-0.19	580	10370	54	-108	11.9	46	-2.1	6	1.6	46620	13.9	25340	31	0.6
08-37.1325-105.0508-2-15-						0-C29607	59880	-0.15	518	21120	50	-90	11.6	47	3.1	5	1.3	27080	8.4	21850	29	0.5

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

4

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
08-37.9964-105.3381-2-12-	08-37.9928-105.3375-2-15-	08-37.9719-105.2650-2-13-	08-37.9700-105.2642-2-15-	08-37.9900-105.2772-2-12-	08-37.9719-105.3369-2-14-	08-37.9742-105.3364-2-15-	08-37.9714-105.3442-2-15-	08-37.9622-105.3239-2-15-	08-37.9044-105.3319-2-15-	08-37.9044-105.3353-2-12-	08-37.8983-105.3272-2-15-	08-37.8978-105.3325-2-12-	08-37.2106-105.0206-2-12-	08-37.2078-105.0000-2-12-	08-37.1975-104.9731-2-12-	08-37.2303-104.9953-2-12-	08-37.2303-104.9933-2-12-	08-37.1625-104.9433-2-12-	08-37.1706-104.9542-2-15-	08-37.1803-104.9281-2-11-	08-37.1556-104.9203-2-15-	08-37.1950-104.8842-2-11-	08-37.1975-104.8775-2-12-	08-37.2044-104.8836-2-15-	08-37.2039-104.8861-2-15-	08-37.2442-104.8956-2-96-	08-37.2339-104.8919-2-13-	08-37.2317-104.9214-2-15-	08-37.2303-104.9208-2-15-	08-37.2444-104.9450-2-11-	08-37.2467-104.9533-2-12-	08-37.2389-105.0517-2-12-	08-37.2494-105.1050-2-12-	08-37.2500-105.1042-2-12-	08-37.2061-105.0500-2-12-	08-37.2003-105.0481-2-13-	08-37.1564-105.0414-2-12-	08-37.1522-105.0450-2-12-	08-37.1383-105.0494-2-12-	08-37.1661-105.1019-2-11-	08-37.0444-105.4153-2-15-	08-37.0464-105.4228-2-14-	08-37.0197-105.4236-2-15-	08-37.0039-105.4764-2-15-	08-37.0042-105.4778-2-15-	08-37.1756-105.3169-2-12-	08-37.1736-105.2825-2-12-	08-37.1258-105.1039-2-12-	08-37.1311-105.0481-2-12-	08-37.1325-105.0508-2-15-	0-C29552	0-C29553	0-C29554	0-C29555	0-C29556	0-C29557	0-C29558	0-C29559	0-C29560	0-C29563	0-C29564	0-C29565	0-C29566	0-C29567	0-C29568	0-C29569	0-C29571	0-C29572	0-C29573	0-C29574	0-C29575	0-C29576	0-C29577	0-C29578	0-C29579	0-C29580	0-C29581	0-C29582	0-C29583	0-C29584	0-C29585	0-C29586	0-C29587	0-C29588	0-C29589	0-C29591	0-C29592	0-C29593	0-C29594	0-C29595	0-C29596	0-C29597	0-C29598	0-C29599	0-C29600	0-C29601	0-C29602	0-C29603	0-C29605	0-C29606	0-C29607	13650	12790	9502	8250	15280	8575	17580	12170	17540	-4647	8488	14820	12350	7975	12420	10060	8479	10920	8155	6106	10750	8574	9664	8227	7667	-3927	8943	12810	5023	-3907	4975	7842	9624	15520	14360	19250	14230	13360	15440	14210	25820	17540	17000	13890	16230	14740	11010	12170	17580	9793	12360	730	21260	-44	-6	10.8	9.1	517	-1	-1	11.9	5083	116	6.1	113	0.261	948	20700	69	-5	10.0	6.7	481	2	-1	11.5	8190	243	6.2	141	0.310	513	24610	57	-4	8.2	5.3	386	-1	-1	10.6	5023	105	3.9	153	0.307	866	21170	79	-4	7.3	3.9	-341	-1	-1	10.6	3040	83	3.5	-57	0.311	723	22000	95	-6	12.7	8.4	637	-1	-1	13.0	4785	88	6.6	88	0.237	605	20660	78	-5	8.9	4.4	337	-1	-1	9.2	4161	75	3.3	110	0.304	665	19830	-34	-4	8.8	5.0	489	-1	-1	9.7	4038	94	-2.4	56	0.296	759	19350	61	-5	9.8	8.7	448	-1	-1	12.2	4882	83	4.4	72	0.300	861	16230	66	-6	12.2	8.3	443	-1	-1	13.5	4020	74	5.0	-58	0.228	750	21700	67	-5	9.2	4.5	-336	2	-1	8.5	7000	228	-3.0	109	0.380	380	23690	-33	-4	7.8	5.5	462	-1	-1	7.7	4140	104	-2.8	52	0.468	717	22490	-32	-4	9.5	7.1	554	-1	-1	9.8	6623	167	3.8	125	0.288	1176	19030	-55	-6	11.1	7.5	539	-2	-1	9.4	7068	213	4.9	136	0.311	733	19900	67	-5	8.1	4.3	-361	-1	-1	8.0	4828	89	4.5	107	0.494	1076	18420	-39	-5	9.2	5.3	-407	-1	-1	7.6	3797	82	3.8	102	0.572	519	18600	47	-4	7.8	5.0	-276	-1	1	8.6	3447	78	6.5	-34	0.515	594	14930	92	-6	11.2	7.5	-281	-1	-1	11.7	4663	78	5.4	93	0.421	523	17540	-38	-5	7.9	3.8	-295	-1	-1	7.6	4023	79	-2.8	61	0.484	338	14030	67	-1	8.3	6.3	-219	-1	-1	9.3	4084	74	4.7	90	0.616	412	10770	67	-4	8.5	4.5	-213	-1	-1	8.9	4203	73	5.7	48	0.563	665	9758	-53	-7	17.0	6.7	-294	-2	-2	15.3	5029	106	6.5	-113	0.388	433	11740	59	-5	9.7	4.5	-255	-1	-1	7.6	4471	70	5.4	148	0.570	584	13120	110	-5	9.6	-2.0	-292	-1	-1	8.8	4022	82	4.3	84	0.549	743	15190	84	-4	7.1	4.8	-304	-1	-1	8.8	3419	56	5.0	73	0.440	569	15290	-37	-5	9.9	6.4	-251	-1	-1	9.9	3818	68	7.5	-42	0.503	660	14360	77	-5	9.0	5.6	-304	-1	-1	9.2	4418	66	5.2	55	0.552	400	13970	-26	-4	6.8	4.9	-222	-1	-1	7.6	3743	57	6.2	86	0.520	422	11100	80	-5	10.7	7.2	-271	-1	-1	12.7	4382	86	5.0	75	0.382	291	16050	86	-4	5.7	3.1	-205	-1	-1	6.5	2568	33	4.3	-16	0.489	470	16860	82	-4	5.5	4.8	-281	-1	-1	10.3	3241	42	7.0	-36	0.527	330	17950	68	-3	5.2	3.3	-231	-1	-1	7.2	2739	44	5.3	-51	0.686	449	16410	77	-4	6.6	5.0	-261	-1	-1	10.4	3540	59	4.6	62	0.466	297	26190	100	-4	7.2	5.8	-240	-1	-1	7.2	2541	50	4.7	55	0.539	620	25370	-41	-5	9.1	3.4	-366	-1	-1	6.4	3485	91	-3.7	-35	0.703	584	22580	55	-5	10.7	4.7	-319	-1	-1	8.2	3130	85	4.2	-46	0.727	580	19620	87	-5	10.1	8.6	-341	-1	-1	10.5	3645	89	7.3	109	0.601	378	22210	90	-5	9.3	4.5	-266	-1	-1	11.3	3602	79	-3.3	-50	0.419	742	18380	-50	-6	9.8	6.2	-382	-1	-1	9.1	4672	116	5.2	66	0.890	565	21550	67	-5	8.9	4.0	-315	-2	-1	7.0	4136	65	4.0	80	0.709	566	22100	62	-5	10.0	7.3	-305	-1	-1	7.4	4401	76	4.1	45	0.751	643	22200	-52	-8	14.9	8.6	-342	-2	-1	11.9	4448	83	-4.4	-84	0.434	665	14190	-39	-5	8.4	7.6	-345	-1	-1	12.1	3866	45	8.1	82	0.555	529	17580	73	-4	8.1	7.9	-299	-1	1	10.3	3611	55	7.3	109	0.499	554	12580	98	-4	7.4	11.7	-285	-1	-1	15.9	3850	40	9.8	115	0.413	691	15650	-39	-5	10.7	6.1	397	-1	-1	10.2	4312	79	-3.5	49	0.292	793	14270	-42	-5	10.4	5.3	-360	-1	-1	10.9	5004	86	4.3	80	0.284	612	16630	-33	-4	8.5	4.6	-287	-1	-1	10.2	4434	73	5.1	85	0.372	571	20800	66	-4	9.1	6.0	449	2	-1	10.9	4185	74	7.3	86	0.627	903	16570	-65	-7	22.1	9.9	-319	5	-2	16.5	5372	256	10.0	-83	0.614	515	21520	-41	-5	9.4	3.7	-310	-1	-1	7.6	3967	105	4.2	99	0.707	523	15110	69	-4	7.7	5.0	-268	-1	-1	7.1	3657	60	4.2	64	0.537

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																		U CONCENTRATION										
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	RELOCATE	LAS SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	CLIMATE	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SODIUM (ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																										
08-37.1533-105.0047-2-12-	0-C29608-04/18/76-9-	2-	4.0-	-	-	7.1-	439-	2-3-7-4-1-2-2-1-2-4-4-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.29		
08-37.1542-105.0044-2-12-	0-C29609-04/18/76-9-	2-	4.0-	-	-	7.9-	325-	15-3-7-4-1-2-2-1-2-4-4-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.61		
08-37.1486-104.9206-2-15-	0-C29610-04/19/76-10-	2-	-	-	-	-	-	17-3-2-4-7-1-2-4-2-4-3-	-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.37		
08-37.1419-104.9439-2-15-	0-C29611-04/19/76-10-	4-	-	-	-	-	-	5-3-1-4-1-1-2-1-3-3-3-	-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.99		
08-37.1394-104.9692-2-15-	0-C29612-04/19/76-10-	4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.49		
08-37.1436-104.9033-2-15-	0-C29614-04/19/76-11-	11-	-	-	-	-	-	7-3-1-4-1-1-2-1-3-3-3-	-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.04		
08-37.1683-104.8756-2-12-	0-C29616-04/19/76-11-	7-11.2-	-	-	-	8.0-	555-	11-3-1-4-1-2-2-2-4-2-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.71		
08-37.1186-105.0392-2-14-	0-C29617-04/19/76-11-	8-	7.4-	-	-	8.5-	565-	11-3-1-4-7-1-3-2-1-4-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.16		
08-37.0967-105.1172-2-13-	0-C29618-04/19/76-15-	2-	1.2-	-	-	7.3-	100-	17-3-1-3-4-3-3-1-2-1-4-5-5-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.92		
08-37.0750-105.1039-2-12-	0-C29619-04/19/76-15-	2-	3.4-	-	-	7.4-	120-	7-3-3-3-3-3-3-1-2-1-4-5-5-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.24		
08-37.0742-105.1022-2-12-	0-C29620-04/19/76-16-	4-	5.3-	-	-	7.1-	172-	20-3-1-3-1-2-2-2-2-3-4-5-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.20		
08-37.0775-105.0931-2-12-	0-C29621-04/19/76-16-	4-	7.5-	-	-	7.1-	127-	8-3-1-6-8-1-3-4-1-3-4-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.72		
08-37.0750-105.0972-2-12-	0-C29622-04/20/76-10-	4-	2.7-	-	-	6.0-	137-	11-1-1-3-1-3-3-1-2-1-3-4-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.26		
08-37.0569-105.0872-2-13-	0-C29623-04/20/76-10-	5-	8.4-	-	-	9.5-	234-	5-3-1-6-7-1-3-5-1-3-4-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.06		
08-37.0272-105.0031-2-12-	0-C29624-04/20/76-10-	11-11.8-	-	-	-																													

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER						DOE LAB SAMPLE TYPE REPLICATE LAB SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY Concentrations in weight ppm		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)										Be	Li	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W				
08-37.1533-105.0047-2-12-						0-C29608	-5	5	-5	19	-20	20	12	-10	-15	3	55		
08-37.1542-105.0044-2-12-						0-C29609	-5	-5	-5	25	-20	-15	21	-10	-15	3	26		
08-37.1486-104.9206-2-15-						0-C29610	-5	-5	-5	46	-20	-15	20	-10	-15	4	41		
08-37.1419-104.9439-2-15-						0-C29611	-5	-5	-5	37	-20	20	14	-10	-15	3	50		
08-37.1394-104.9692-2-15-						0-C29612	-5	5	-5	25	-20	-15	11	-10	-15	4	44		
08-37.1436-104.9033-2-15-						0-C29614	-5	-5	-5	30	-20	16	14	-10	-15	4	48		
08-37.1683-104.8756-2-12-						0-C29616	-5	-5	-5	24	-20	-15	15	-10	-15	3	42		
08-37.1186-105.0392-2-14-						0-C29617	-5	-5	-5	36	-20	30	21	-10	-15	4	51		
08-37.0967-105.1172-2-13-						0-C29618	-5	-5	-5	30	-20	25	10	-10	-15	4	45		
08-37.0750-105.1039-2-12-						0-C29619	-5	-5	-5	29	-20	-15	6	-10	-15	3	34		
08-37.0742-105.1022-2-12-						0-C29620	-5	-5	5	24	-20	20	10	-10	-15	3	30		
08-37.0775-105.0931-2-12-						0-C29621	-5	-5	-5	27	-20	19	11	-10	-15	4	48		
08-37.0750-105.0947-2-12-						0-C29622	-5	-5	-5	25	-20	-15	11	-10	-15	3	38		
08-37.0569-105.0847-2-13-						0-C29623	-5	-5	-5	35	-20	19	16	-10	-15	3	37		
08-37.0272-105.0031-2-12-						0-C29624	-5	-5	-5	48	-20	20	19	-10	-15	3	51		
08-37.0106-105.0522-2-11-						0-C29626	-5	-5	-5	49	-20	-15	17	-10	-15	4	34		
08-37.0242-104.9997-2-12-						0-C29628	-5	-5	-5	27	-20	-15	20	-10	-15	4	50		
08-37.0511-104.9967-2-12-						0-C29629	-5	-5	-5	13	22	-15	16	-10	-15	3	36		
08-37.0597-104.9861-2-12-						0-C29630	-5	-5	-5	23	-20	-15	12	-10	-15	3	41		
08-37.0681-104.9675-2-15-						0-C29631	-5	-5	5	31	-20	-15	14	-10	-15	2	29		
08-37.0667-104.9289-2-15-						0-C29632	-5	-5	5	35	-20	22	15	-10	-15	3	48		
08-37.4872-105.3422-2-15-						0-C29633	-5	-5	-5	35	-20	-15	6	-10	-15	3	40		
08-37.0761-104.9061-2-15-						0-C29634	-5	-5	-5	33	-20	-15	13	-10	-15	2	33		
08-37.0936-104.8828-2-15-						0-C29635	-5	-5	-5	34	-20	-15	14	-10	-15	3	39		
08-37.0156-104.9692-2-12-						0-C29637	-5	-5	-5	30	-20	-15	10	-10	-15	3	27		
08-37.0092-104.9619-2-11-						0-C29638	-5	-5	-5	19	-20	15	8	-10	-15	3	32		
08-37.0017-104.9439-2-12-						0-C29639	-5	-5	-5	29	-20	-15	16	-10	-15	3	33		
08-37.0292-104.9000-2-11-						0-C29640	-5	-5	-5	29	-20	16	14	-10	-15	3	50		
08-37.0303-104.8975-2-15-						0-C29641	-5	-5	-5	26	-20	-15	17	-10	-15	3	43		
08-37.1103-104.8961-2-15-						0-C29643	-5	-5	-5	30	-20	-15	17	-10	-15	2	30		
08-37.1075-104.9911-2-15-						0-C29644	-5	-5	-5	40	-20	-15	9	-10	-15	3	46		
08-37.3511-105.1053-2-12-						0-C29645	-5	-5	-5	27	-20	-15	10	-10	-15	2	49		
08-37.3403-105.0928-2-12-						0-C29646	-5	-5	-5	40	-20	24	13	-10	-15	3	39		
08-37.3000-105.0533-2-12-						0-C29647	-5	-5	-5	17	-20	-15	-5	-10	-15	3	26		
08-37.2983-105.0503-2-12-						0-C29648	-5	-5	-5	34	-20	16	7	-10	-15	3	36		
08-37.2939-105.0475-2-12-						0-C29649	-5	-5	-5	25	-20	-15	11	-10	-15	3	25		
08-37.2822-105.0356-2-15-						0-C29650	-5	-5	-5	24	-20	-15	5	-10	-15	2	29		
08-37.2769-105.0294-2-12-						0-C29651	-5	-5	-5	31	-20	-15	11	-10	-15	3	30		
08-37.2650-105.0153-2-12-						0-C29652	-5	-5	-5	21	-20	-15	6	-10	-15	3	36		
08-37.2675-105.1181-2-12-						0-C29653	-5	-5	-5	24	-20	-15	6	-10	-15	3	37		
08-37.8272-105.4500-2-12-						0-C29654	-5	-5	-5	19	-20	-15	13	-10	-15	3	37		
08-37.8528-105.4392-2-12-						0-C29655	-5	-5	-5	23	-20	-15	16	-10	-15	2	31		
08-37.8539-105.4389-2-12-						0-C29656	-5	-5	-5	14	-20	-15	7	-10	-15	2	28		
08-37.8217-105.4906-2-15-						0-C29657	-5	-5	-5	15	-20	-15	5	-10	-15	3	23		
08-37.5050-105.4619-2-15-						0-C29658	-5	-5	-5	21	-20	-15	-5	-10	-15	2	18		
08-37.5022-105.4917-2-12-						0-C29659	-5	-5	-5	22	-20	-15	-5	-10	-15	2	24		
08-37.5108-105.4922-2-12-						0-C29660	-5	-5	-5	36	-20	27	15	-10	-15	3	20		
08-37.5083-105.4978-2-15-						0-C29661	-5	-5	-5	38	-20	29	5	-10	-15	2	21		
08-37.5117-105.4247-2-11-						0-C29662	-5	-5	-5	33	-20	-15	-5	-10	-15	2	27		
08-37.5636-105.4392-2-12-						0-C29663	-5	-5	-5	45	-20	-15	5	-10	-15	2	29		
08-37.5058-105.3908-2-15-						0-C29664	-5	-5	-5	52	-20	22	6	-10	-15	2	40		

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	U.S. SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.1533-105.0047-2-12-						0-C29608	66960	-0.18	684	24360	69	-89	10.5	56	4.2	6	1.7	26530	12.1	22050	41	0.6
08-37.1542-105.0044-2-12-						0-C29609	58110	-0.23	672	32090	51	-123	9.2	35	-2.6	4	1.5	28120	11.4	22020	-28	0.6
08-37.1486-104.9236-2-15-						0-C29610	83640	-0.22	871	5581	70	-73	15.0	51	4.1	7	1.8	33220	6.6	21880	44	0.6
08-37.1419-104.9439-2-15-						0-C29611	77240	-0.17	644	5277	68	-64	15.3	40	3.9	7	1.9	32530	12.3	24660	59	0.7
08-37.1394-104.9632-2-15-						0-C29612	70200	-0.15	808	6576	69	-69	10.9	32	3.6	6	1.5	23140	8.9	22800	-14	0.6
08-37.1436-104.9033-2-15-						0-C29614	83220	-0.23	754	9145	98	-68	18.1	66	5.2	7	2.3	46300	13.2	23920	58	0.5
08-37.1683-104.8756-2-12-						0-C29616	77640	-0.20	899	11870	55	-84	10.0	38	-2.2	6	1.8	28760	9.4	26230	-17	0.6
08-37.1186-105.0332-2-14-						0-C29617	78200	-0.18	547	7997	70	-79	14.4	62	8.0	5	1.5	33990	6.5	21490	-21	0.3
08-37.0967-105.1172-2-13-						0-C29618	64960	-0.20	531	18860	69	-101	16.6	121	4.8	8	1.8	37760	9.3	21400	27	0.8
08-37.0750-105.1039-2-12-						0-C29619	56510	-0.23	481	7799	76	-90	17.6	91	-2.5	9	2.0	76890	31.6	22120	58	1.4
08-37.0742-105.1022-2-12-						0-C29620	57710	-0.23	610	11680	59	-101	13.4	80	2.3	12	2.4	56950	39.7	19630	62	1.7
08-37.0775-105.0931-2-12-						0-C29621	67520	-0.18	551	9931	72	-92	11.3	74	2.9	8	1.5	26150	11.9	22460	53	0.7
08-37.0750-105.0947-2-12-						0-C29622	66600	-0.16	540	7576	78	-89	11.8	62	3.4	7	1.6	30320	11.7	20870	22	0.7
08-37.0569-105.0847-2-13-						0-C29623	84680	-0.26	636	10460	87	-77	14.6	68	9.1	6	2.0	33830	9.0	24190	-26	0.6
08-37.0272-105.0031-2-12-						0-C29624	88700	-0.25	778	5211	60	-81	14.5	50	6.1	7	1.6	30740	7.6	26810	-25	0.7
08-37.0106-105.0522-2-11-						0-C29626	85830	-0.21	985	7117	55	-71	16.5	35	5.3	6	1.8	32520	6.8	19020	-22	0.4
08-37.0242-104.9997-2-12-						0-C29628	83790	-0.21	755	4627	96	-73	15.8	54	5.4	7	1.9	29830	9.0	21200	50	0.7
08-37.0511-104.9967-2-12-						0-C29629	58410	-0.21	597	8161	82	-79	12.5	65	3.4	8	1.9	44010	36.7	21930	67	1.4
08-37.0597-104.9851-2-12-						0-C29630	72130	-0.22	661	8664	59	-93	9.3	38	5.0	6	1.5	26080	9.4	19560	-22	0.5
08-37.0681-104.9675-2-15-						0-C29631	70720	-0.16	661	3668	66	-63	13.5	41	3.5	6	1.5	29720	12.5	24020	-15	0.5
08-37.0667-104.9289-2-15-						0-C29632	77570	-0.17	716	5837	83	-60	14.0	60	3.8	6	1.9	28030	8.2	22060	41	0.6
08-37.4872-105.3422-2-15-						0-C29633	72320	-0.22	865	22670	145	235	21.3	41	-2.4	7	3.5	56450	26.6	20870	100	0.7
08-37.0761-104.9061-2-15-						0-C29634	73610	-0.19	871	4796	55	-71	11.7	36	4.3	6	1.4	26700	11.2	21740	-17	0.5
08-37.0936-104.8828-2-15-						0-C29635	83670	-0.19	820	4717	62	-65	13.7	45	4.7	7	1.7	27600	9.0	20440	-18	0.6
08-37.0156-104.9692-2-12-						0-C29637	71410	-0.18	830	5838	77	-81	12.7	35	3.1	5	1.8	22810	10.7	21840	52	0.6
08-37.0092-104.9619-2-11-						0-C29638	66410	-0.20	818	5198	82	-79	13.1	33	3.4	5	2.0	25190	15.5	21400	56	0.6
08-37.0017-104.9439-2-12-						0-C29639	69960	-0.20	797	6810	59	-90	16.0	33	3.5	6	1.7	24870	10.0	22770	-22	0.5
08-37.0292-104.9000-2-11-						0-C29640	69750	-0.18	655	5527	51	-82	13.8	46	4.9	5	1.4	25820	8.1	26360	-21	0.5
08-37.0303-104.8975-2-15-						0-C29641	74550	-0.19	615	6333	89	-84	16.5	58	4.8	6	1.9	29000	13.4	23810	43	0.8
08-37.1103-104.8961-2-15-						0-C29643	70920	-0.21	1042	5190	98	-55	15.9	53	4.9	6	2.2	42590	15.2	19890	65	0.7
08-37.1075-104.9911-2-15-						0-C29644	78750	-0.22	822	6119	66	-77	14.7	50	3.7	7	1.7	27400	6.7	22370	45	0.5
08-37.3511-105.1053-2-12-						0-C29645	66460	-0.18	533	12460	55	-124	13.9	41	2.9	6	1.6	34470	10.1	22540	40	0.6
08-37.3403-105.0928-2-12-						0-C29646	65040	-0.20	715	14420	78	-111	14.2	55	3.6	7	1.7	31450	9.6	24470	41	0.7
08-37.3000-105.0533-2-12-						0-C29647	69440	-0.21	880	9489	70	-92	11.2	44	3.8	6	2.3	29740	18.8	20510	59	0.8
08-37.2983-105.0503-2-12-						0-C29648	62200	-0.19	800	10640	54	-111	8.9	39	-2.0	7	1.7	30550	13.3	28090	41	0.9
08-37.2939-105.0475-2-12-						0-C29649	69260	-0.19	939	8092	62	-91	10.5	25	2.3	6	1.4	30850	11.3	26170	36	0.5
08-37.2822-105.0356-2-15-						0-C29650	67610	-0.16	1008	10440	77	-95	13.0	34	2.6	5	1.5	24920	11.2	25060	-17	0.6
08-37.2769-105.0294-2-12-						0-C29651	67570	-0.19	749	8368	73	-90	12.4	48	3.7	5	2.2	27580	10.0	25350	-22	0.5
08-37.2650-105.0153-2-12-						0-C29652	67160	-0.19	708	8472	58	-95	10.2	37	4.1	6	1.6	25730	11.0	23220	50	0.5
08-37.2675-105.1181-2-12-						0-C29653	65690	-0.18	581	11950	56	-118	10.0	46	-2.1	6	1.6	41900	13.6	23330	-19	0.9
08-37.8272-105.4500-2-12-						0-C29654	80220	-0.14	952	24590	73	-105	9.8	28	2.9	5	2.4	25820	8.6	21250	38	0.4
08-37.8528-105.4392-2-12-						0-C29655	77500	-0.24	1145	26890	99	-99	12.8	42	-2.1	5	3.0	42750	14.0	22220	53	0.4
08-37.8539-105.4389-2-12-						0-C29656	80350	-0.21	1016	26110	69	-111	10.9	27	-1.9	4	2.6	39150	14.0	19830	55	0.4
08-37.8217-105.4906-2-15-						0-C29657	79450	-0.16	694	27430	76	-97	12.1	19	2.1	4	2.3	33880	5.7	22000	49	0.3
08-37.5050-105.4619-2-15-						0-C29658	61970	-0.20	592	23510	127	-109	21.0	65	-1.7	5	2.2	72800	27.4	17900	61	0.7
08-37.5022-105.4517-2-12-						0-C29659	72440	-0.22	677	25530	78	105	15.2	35	-2.0	4	2.2	37250	8.7	21450	49	0.4
08-37.5108-105.4522-2-12-						0-C29660	65290	-0.27	572	25460	58	-124	16.9	56	-2.4	5	2.0	46510	13.7	14970	-33	0.5
08-37.5083-105.4578-2-15-						0-C29661	69630	-0.20	482	20480	55	-97	22.5	55	2.0	3	2.1	74220	16.4	17550	52	0.5
08-37.5117-105.4247-2-11-						0-C29662	69520	-0.25	813	24120	80	-95	10.8	34	-2.2	5	2.2	26910	15.3	20800	69	0.5
08-37.5636-105.4392-2-12-						0-C29663	75330	-0.30	660	20980	58	-110	14.6	46	-2.7	6	2.0	33880	14.1	15620	-32	0.5
08-37.5058-105.3508-2-15-						0-C29664	74110	-0.21	651	19480	76	-96	17.5	48	3.1	5	2.1	37640	6.1	24490	59	0.4

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APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																	U CONCENTRATION																																																																																																																																																																																																																																																																																																																																				
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLATOR (cpm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm																																																																																																																																																																																																																																																																																																																									
08-37.5247-105.3906-2-12-	08-37.5386-105.3333-2-14-	08-37.5575-105.3350-2-12-	08-37.5667-105.3331-2-12-	08-37.5675-105.3317-2-12-	08-37.5006-105.3958-2-12-	08-37.6208-105.4711-2-12-	08-37.9475-105.6000-2-12-	08-37.9217-105.5728-2-12-	08-37.9017-105.6064-2-12-	08-37.9481-105.5350-2-11-	08-37.9406-105.5283-2-11-	08-37.9186-105.5042-2-12-	08-37.8892-105.5025-2-12-	08-37.9308-105.5106-2-11-	08-37.9764-105.5061-2-12-	08-37.9639-105.5458-2-12-	08-37.4961-105.3336-2-15-	08-37.9167-105.0019-2-12-	08-37.9675-105.0181-2-12-	08-37.9744-105.0844-2-12-	08-37.9761-105.0847-2-12-	08-37.8850-105.0914-2-12-	08-37.2514-105.0353-2-12-	08-37.3461-105.0892-2-12-	08-37.6717-104.9931-2-11-	08-37.6389-104.9942-2-15-	08-37.3264-104.8853-2-12-	08-37.3081-104.9378-2-12-	08-37.3775-104.8817-2-11-	08-37.3758-104.8819-2-12-	08-37.3561-104.9150-2-12-	08-37.3278-104.9506-2-12-	08-37.3269-104.9656-2-12-	08-37.3000-104.9631-2-13-	08-37.2903-104.9731-2-14-	08-37.2750-104.9667-2-13-	08-37.2669-104.9781-2-14-	08-37.2564-104.9064-2-15-	08-37.2575-104.9050-2-15-	08-37.2956-104.8847-2-12-	08-37.2942-104.8864-2-12-	08-37.3247-104.8961-2-97-	08-37.5150-105.3019-2-12-	08-37.5144-105.2919-2-15-	08-37.5169-105.2769-2-15-	08-37.5217-105.2744-2-12-	08-37.5231-105.2578-2-12-	08-37.5211-105.2322-2-12-	08-37.5197-105.2122-2-12-	08-37.5139-105.2131-2-12-	0-C29665-07/23/76-15-	0-C29666-07/23/76-14-	0-C29667-07/23/76-15-	0-C29668-07/23/76-15-	0-C29669-07/23/76-15-	0-C29670-07/23/76-16-	0-C29671-07/24/76-12-	0-C29672-07/24/76-18-	0-C29673-07/25/76-12-	0-C29674-07/25/76-13-	0-C29675-07/26/76-13-	0-C29677-07/26/76-15-	0-C29678-07/26/76-15-	0-C29679-07/26/76-16-	0-C29680-07/26/76-15-	0-C29681-07/26/76-17-	0-C29682-07/26/76-17-	0-C29691-04/28/76-16-	0-C29713-05/11/76-15-	0-C29714-05/11/76-16-	0-C29715-05/12/76-10-	0-C29716-05/12/76-10-	0-C29717-05/12/76-15-	0-C29718-04/22/76-14-	0-C29719-04/22/76-14-	0-C29720-04/26/76-11-	0-C29721-04/26/76-11-	0-C29723-04/24/76-10-	0-C29724-04/26/76-11-	0-C29725-04/26/76-10-	0-C29726-04/26/76-11-	0-C29727-04/26/76-10-	0-C29730-04/26/76-12-	0-C29731-04/26/76-12-	0-C29734-04/26/76-15-	0-C29736-04/26/76-16-	0-C29737-04/26/76-17-	0-C29738-04/26/76-16-	0-C29740-04/26/76-18-	0-C29741-04/26/76-18-	0-C29742-04/26/76-18-	0-C29743-04/26/76-18-	0-C29744-04/26/76-18-	0-C29745-04/27/76-11-	0-C29746-04/27/76-11-	0-C29747-04/27/76-11-	0-C29748-04/27/76-11-	0-C29749-04/27/76-11-	0-C29750-04/27/76-12-	0-C29751-04/27/76-12-	0-C29752-04/27/76-12-	22-15.0-	20-16.0-	19-13.0-	20-14.0-	20-17.0-	21-18.0-	14- 6.0-C-	17- 9.0-C-	14- 9.0-	18-11.0-	17- 7.0-	17-11.0-	17-11.0-	17-11.0-	17- 6.0-	13- 9.0-	9- 8.2-	15-	14- 5.0-	16-10.2-	6- 1.2-C-	6- 1.2-C-	13- 7.8-	10-13.0-	11-10.5-	21-11.4-	21- -C-	17- 9.7-	14-14.8-	15-10.2-	16- 8.8-	15- 5.2-	14-10.8-	14- 8.0-	14-13.8-	14-15.0-	15-14.0-	8-14.3-	12-	12-	11-12.8-	11-11.0-	11-	11- 7.6-	11-	11-	11- 8.2-	11- 6.5-	12- 6.9-	10- 7.5-	11- 6.8-	7.2-	7.3-	6.4-	8.0-	7.4-	7.9-	8.1-	8.2-	8.2-	7.4-	8.2-	7.8-	8.3-	7.7-	-	6.5-	6.1-	6.8-	5.9-	6.3-	8.7-	9.8-	6.8-	-	7.2-	7.2-	6.3-	6.2-	7.7-	6.4-	6.8-	7.1-	9.3-	9.0-	8.3-	-	-	7.8-	8.2-	-	8.6-	8.9-	8.8-	8.4-	6.8-	6.3-	55-	65-	85-	55-	55-	65-	45-	60-	55-	35-	40-	170-	70-	50-	-	610-	720-	525-	590-	190-	490-	340-	6500-	-	258-	195-	125-	108-	100-	600-	77-	172-	125-	420-	228-	-	-	408-	320-	-	303-	-	276-	250-	250-	148-	323-	16-2-1-1-1-4-4-1-1-2-3-4-2-	10-2-1-5-6-3-3-1-1-3-4-2-	12-2-1-2-1-4-4-1-1-1-3-4-2-	10-2-1-1-1-4-4-1-1-1-3-4-2-	10-2-1-2-1-3-3-1-1-2-3-4-2-	18-2-1-2-1-4-4-1-1-2-3-4-2-	8-2-7-2-7-4-4-1-1-4-4-5-4-	25-2-7-1-7-4-4-1-1-2-4-4-3-	12-2-7-1-7-4-4-1-1-2-4-5-3-	12-2-1-2-1-3-3-1-1-2-4-4-2-	18-2-7-1-7-3-3-1-1-3-4-5-3-	18-2-7-6-8-1-3-5-1-1-2-5-4-	12-2-7-1-7-4-4-1-1-1-3-5-3-	8-2-7-1-7-4-4-1-1-1-2-5-4-	12-2-7-2-7-2-3-1-1-3-2-5-4-	40-2-4-1-4-4-4-2-1-1-4-5-3-	16-2-4-1-4-4-4-4-1-2-4-5-4-	5-3-1-4-1-1-1-2-4-3-2-1-	9-3-7-9-3-3-3-1-9-1-3-5-2-	4-2-7-1-7-3-3-2-1-1-3-5-3-	3-3-7-1-7-4-4-1-2-1-4-5-2-	6-3-7-1-3-4-4-1-2-1-4-5-2-	12-3-3-2-3-3-4-1-2-1-5-5-2-	11-3-1-4-7-3-2-1-2-3-2-3-2-	8-3-1-4-7-3-3-1-2-1-3-3-2-	8-3-1-4-1-2-3-1-3-2-2-1-	8-3-1-4-1-1-1-2-3-2-2-1-	17-3-1-5-7-3-3-2-2-3-3-3-1-	5-3-1-4-1-2-2-1-1-1-4-4-2-	8-3-1-5-8-2-3-2-2-3-3-3-1-	14-3-1-5-8-2-3-2-2-3-3-3-1-	11-3-1-4-7-3-3-1-2-1-3-3-1-	5-3-1-4-1-3-3-1-2-4-3-4-1-	14-3-1-4-1-3-3-1-2-1-3-4-1-	14-3-1-5-8-1-3-4-1-3-3-1-	14-3-1-6-8-1-3-4-1-4-3-4-2-	8-3-1-6-8-1-2-2-2-4-3-3-1-	8-3-1-4-1-1-3-3-2-1-3-3-1-	11-3-1-4-1-1-1-2-1-3-3-2-	11-3-1-4-1-1-1-2-1-3-3-2-	5-3-1-3-1-2-2-1-2-3-3-3-2-	5-3-1-6-8-2-2-1-2-3-3-3-2-	31-3-1-5-8-1-1-1-4-3-3-2-	27-3-1-4-1-3-3-1-2-1-3-4-2-	10-3-1-4-1-1-1-2-3-3-3-2-	10-3-1-4-1-1-1-2-4-3-3-2-	5-3-1-3-8-3-3-2-2-4-3-3-2-	27-3-1-4-1-3-3-2-2-4-3-3-2-	11-3-1-5-6-3-3-2-2-3-3-3-3-	8-3-1-5-8-3-3-1-2-1-3-4-1-	8-3-1-4-1-3-3-1-2-1-3-4-1-	5.70	6.56	7.66	6.47	5.86	5.89	5.63	45.62	12.08	5.63	16.24	608.80	20.41	16.79	6.42	8.96	13.38	2.80	7.41	5.84	4.97	5.00	3.41	4.59	4.25	2.34	5.17	5.05	2.82	4.52	5.01	3.75	5.13	4.82	7.07	7.98	6.53	9.16	8.43	5.41	5.49	5.18	5.30	2.98	2.68	5.11	4.31	3.77	4.07	6.29	3.85

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08-37.5247-105.3906-2-12-						0-C29665	-5	-5	-5	45	-20	21	-5	-10	-15	2	25	
08-37.5386-105.3833-2-14-						0-C29666	-5	-5	-5	24	-20	-15	7	-10	-15	3	45	
08-37.5575-105.3850-2-12-						0-C29667	-5	-5	-5	24	-20	20	5	-10	-15	3	36	
08-37.5667-105.3831-2-12-						0-C29668	-5	-5	-5	33	-20	-15	-5	-10	-15	3	39	
08-37.5675-105.3817-2-12-						0-C29669	-5	-5	-5	18	-20	-15	7	-10	-15	2	28	
08-37.5006-105.3958-2-12-						0-C29670	-5	-5	-5	35	-20	-15	-5	-10	-15	3	28	
08-37.6208-105.4711-2-12-						0-C29671	-5	-5	-5	61	-20	21	-5	-10	-15	2	30	
08-37.9475-105.6000-2-12-						0-C29672	-5	-5	-5	51	-20	19	20	-10	-15	3	42	
08-37.9217-105.5728-2-12-						0-C29673	-5	-5	-5	36	-20	-15	13	-10	-15	3	24	
08-37.9017-105.6064-2-12-						0-C29674	-5	-5	-5	13	-20	-15	-5	-10	-15	3	20	
08-37.9481-105.5350-2-11-						0-C29675	-5	-5	-5	28	-20	18	22	-10	-15	3	35	
08-37.9406-105.5283-2-11-						0-C29677	-5	-5	-5	107	-20	-15	54	-10	-15	4	10	
08-37.9186-105.5042-2-12-						0-C29678	-5	-5	-5	55	-20	29	24	-10	-15	3	37	
08-37.8892-105.5025-2-12-						0-C29679	5	-5	-5	35	-20	36	12	-10	-15	3	35	
08-37.9308-105.5106-2-11-						0-C29680	-5	-5	-5	25	-20	-15	6	-10	-15	3	33	
08-37.9764-105.5061-2-12-						0-C29681	-5	-5	-5	36	-20	24	22	-10	-15	3	37	
08-37.9639-105.5458-2-12-						0-C29682	-5	-5	-5	40	-20	35	18	-10	-15	3	32	
08-37.4961-105.3336-2-15-						0-C29691	-5	-5	-5	46	-20	-15	7	-10	-15	3	20	
08-37.9167-105.0019-2-12-						0-C29713	-5	-5	-5	30	-20	41	-5	-10	-15	3	28	
08-37.9675-105.0181-2-12-						0-C29714	-5	-5	-5	18	-20	27	11	-10	-15	3	21	
08-37.9744-105.0844-2-12-						0-C29715	-5	-5	-5	34	-20	25	21	-10	-15	3	23	
08-37.9761-105.0847-2-12-						0-C29716	9	-5	7	381	-20	-15	143	13	-15	3	22	
08-37.8850-105.0914-2-12-						0-C29717	-5	-5	-5	25	-20	16	15	-10	-15	3	32	
08-37.2514-105.0353-2-12-						0-C29718	-5	-5	-5	29	-20	24	13	-10	-15	3	37	
08-37.3461-105.0892-2-12-						0-C29719	-5	-5	-5	14	-20	-15	14	-10	-15	3	25	
08-37.6717-104.9931-2-11-						0-C29720	-5	-5	-5	23	-20	-15	18	-10	-15	3	19	
08-37.6389-104.9942-2-15-						0-C29721	-5	-5	-5	40	-20	-15	7	-10	-15	3	16	
08-37.3264-104.8853-2-12-						0-C29723	-5	-5	-5	27	-20	-15	14	-10	-15	3	24	
08-37.3081-104.9378-2-12-						0-C29724	-5	-5	-5	20	-20	-15	13	-10	-15	3	17	
08-37.3775-104.8817-2-11-						0-C29725	-5	-5	-5	31	-20	17	8	-10	-15	3	29	
08-37.3758-104.8819-2-12-						0-C29726	-5	-5	-5	37	-20	-15	23	-10	-15	3	39	
08-37.3561-104.9150-2-12-						0-C29727	-5	-5	-5	17	-20	-15	8	-10	-15	3	30	
08-37.3278-104.9506-2-12-						0-C29730	-5	-5	-5	18	-20	-15	13	10	-15	3	23	
08-37.3269-104.9656-2-12-						0-C29731	-5	-5	-5	35	-20	-15	12	-10	-15	3	29	
08-37.3000-104.9631-2-13-						0-C29734	-5	-5	-5	23	-20	-15	9	-10	-15	4	42	
08-37.2903-104.9731-2-14-						0-C29736	-5	-5	-5	39	-20	-15	8	-10	-15	4	49	
08-37.2750-104.9667-2-13-						0-C29737	-5	-5	-5	33	-20	-15	23	-10	-15	3	41	
08-37.2669-104.9781-2-14-						0-C29738	-5	-5	-5	24	-20	-15	13	-10	-15	4	26	
08-37.2564-104.9064-2-15-						0-C29740	-5	-5	-5	16	-20	-15	16	-10	-15	3	21	
08-37.2575-104.9050-2-15-						0-C29741	-5	-5	-5	-10	-20	-15	15	-10	-15	3	20	
08-37.2956-104.8847-2-12-						0-C29742	-5	-5	-5	24	-20	-15	11	-10	-15	3	25	
08-37.2942-104.8864-2-12-						0-C29743	-5	-5	-5	28	-20	18	19	-10	-15	3	39	
08-37.3247-104.8961-2-97-						0-C29744	-5	-5	-5	39	-20	17	19	-10	-15	3	41	
08-37.5150-105.3019-2-12-						0-C29745	-5	-5	-5	30	-20	-15	13	-10	-15	4	36	
08-37.5144-105.2919-2-15-						0-C29746	-5	-5	-5	35	-20	-15	-5	-10	-15	3	28	
08-37.5169-105.2769-2-15-						0-C29747	-5	-5	-5	34	-20	-15	13	-10	-15	4	42	
08-37.5217-105.2744-2-12-						0-C29748	-5	-5	-5	33	-20	28	8	-10	-15	3	44	
08-37.5231-105.2578-2-12-						0-C29749	-5	-5	-5	29	-20	27	17	-10	-15	3	45	
08-37.5211-105.2322-2-12-						0-C29750	-5	-5	-5	45	-20	27	10	-10	-15	3	35	
08-37.5197-105.2122-2-12-						0-C29751	-5	-5	-5	29	-20	-15	14	-10	-15	3	43	
08-37.5139-105.2131-2-12-						0-C29752	-5	5	-5	31	-20	-15	15	-10	-15	3	35	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	C	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.5247-105.3906-2-12-			0-C29665			69260	-0.21	615	20840	94	-98	13.8	42	-1.8	5	2.2	37750	15.7	16860	48	0.6	
08-37.5386-105.3833-2-14-			0-C29666			75630	-0.27	716	19260	89	127	16.2	57	2.6	8	2.4	40230	14.6	21690	88	0.8	
08-37.5575-105.3850-2-12-			0-C29667			70850	-0.27	872	24450	68	-123	11.6	60	-2.4	5	2.2	33380	11.9	17940	95	0.5	
08-37.5667-105.3831-2-12-			0-C29668			82020	-0.07	544	15710	74	-90	8.7	55	-1.9	6	1.9	33180	17.6	16160	43	0.7	
08-37.5675-105.3817-2-12-			0-C29669			68290	-0.22	693	27480	112	130	15.4	61	-1.9	9	3.0	42880	37.3	19390	69	1.2	
08-37.5006-105.3958-2-12-			0-C29670			71320	-0.27	651	22600	114	-100	17.0	67	-2.4	7	2.8	46430	23.2	18350	98	0.8	
08-37.6208-105.4711-2-12-			0-C29671			80800	-0.27	672	23760	42	-118	17.3	56	-2.4	3	1.5	36060	7.1	14900	48	0.4	
08-37.9475-105.6000-2-12-			0-C29672			66950	-0.26	492	21050	83	-105	19.0	94	-2.4	6	2.2	57970	9.6	19720	143	0.7	
08-37.9217-105.5728-2-12-			0-C29673			70170	-0.22	926	21910	105	171	10.0	38	2.3	7	3.1	29180	12.8	20410	88	0.6	
08-37.9017-105.6064-2-12-			0-C29674			74120	-0.26	874	26370	137	167	17.4	46	-2.2	6	3.4	61330	22.4	22560	82	0.5	
08-37.9481-105.5350-2-11-			0-C29675			76490	-0.28	964	12950	77	-108	9.1	43	4.4	6	2.3	32640	13.4	22020	80	0.4	
08-37.9406-105.5283-2-11-			0-C29677			70660	-0.36	439	17890	310	-88	15.3	49	3.2	14	4.9	23970	6.4	14170	1651	1.4	
08-37.9186-105.5042-2-12-			0-C29678			66860	-0.28	788	22350	171	-138	21.7	69	-2.5	8	4.4	49500	17.8	19120	110	0.4	
08-37.8892-105.5025-2-12-			0-C29679			69030	-0.31	864	27700	267	159	24.6	104	-2.8	10	6.0	69070	31.0	15340	166	0.8	
08-37.9308-105.5106-2-11-			0-C29680			79630	-0.27	796	13720	101	-86	15.4	49	-2.5	7	2.5	40690	17.4	18840	87	0.6	
08-37.9764-105.5061-2-12-			0-C29681			73300	-0.24	709	15440	69	-99	19.0	72	3.3	6	2.2	58960	9.7	24330	59	0.6	
08-37.9639-105.5458-2-12-			0-C29682			71800	-0.24	693	13720	100	-97	15.0	68	3.4	7	2.4	46270	11.9	22620	60	0.7	
08-37.4961-105.3336-2-15-			0-C29691			56060	-0.26	740	27730	83	-116	44.7	63	-2.4	4	2.3	119200	11.8	16750	67	0.5	
08-37.9167-105.0019-2-12-			0-C29713			71400	-0.34	622	28160	89	170	17.9	51	-3.1	11	2.7	50910	22.8	20500	-34	0.8	
08-37.9675-105.0181-2-12-			0-C29714			68400	-0.25	591	24840	148	123	18.1	58	-2.3	14	3.0	56390	22.6	18460	102	1.5	
08-37.9744-105.0844-2-12-			0-C29715			68190	-0.23	715	23160	133	-116	13.1	38	-2.0	11	2.6	39750	28.1	17380	92	1.2	
08-37.9761-105.0847-2-12-			0-C29716			62090	-0.38	635	26880	169	-141	20.5	-21	-3.3	13	5.2	77790	66.3	11940	123	1.8	
08-37.8850-105.0914-2-12-			0-C29717			76070	-0.27	980	20470	88	115	13.5	42	3.8	6	2.7	42040	17.5	20290	74	0.5	
08-37.2514-105.0353-2-12-			0-C29718			70920	-0.21	545	10690	56	-95	13.3	56	4.6	6	1.6	36620	12.3	19530	-31	0.6	
08-37.3461-105.0892-2-12-			0-C29719			64960	-0.17	686	13590	59	-95	7.5	46	-1.5	7	1.8	29860	15.3	23040	-21	0.9	
08-37.6717-104.9931-2-11-			0-C29720			70860	-0.21	1040	21890	69	-91	9.5	32	-1.8	4	2.2	29090	9.0	23230	-22	0.4	
08-37.6389-104.9942-2-15-			0-C29721			67780	-0.26	722	14010	119	-105	17.5	76	-2.3	9	2.9	81530	23.3	17840	77	1.0	
08-37.3264-104.8853-2-12-			0-C29723			73940	-0.24	887	10830	79	-93	10.8	40	-2.1	7	1.9	26260	16.1	27550	-39	0.6	
08-37.3081-104.9378-2-12-			0-C29724			63750	-0.13	970	6324	43	-85	6.6	18	1.7	3	1.1	13180	3.5	31710	-21	0.3	
08-37.3775-104.8817-2-11-			0-C29725			72410	-0.26	1111	8479	77	-79	13.5	31	-2.3	7	2.3	26770	13.0	26940	-34	0.8	
08-37.3758-104.8819-2-12-			0-C29726			73820	-0.26	856	7205	61	-100	11.4	46	-2.4	5	1.7	30700	10.1	23200	-34	0.6	
08-37.3561-104.9150-2-12-			0-C29727			68710	-0.20	855	7076	52	-95	11.1	31	3.2	4	1.4	21750	6.8	27720	-35	0.4	
08-37.3278-104.9506-2-12-			0-C29730			61100	-0.20	878	10920	91	-89	7.3	34	-1.7	6	2.0	29390	15.6	24470	-26	0.7	
08-37.3269-104.9656-2-12-			0-C29731			66630	-0.24	758	7718	71	-86	9.3	31	1.9	7	2.0	26790	10.3	28260	-33	0.7	
08-37.3000-104.9631-2-13-			0-C29734			70650	-0.27	766	10430	69	-111	8.6	34	-2.3	7	1.6	28660	11.6	24460	62	0.6	
08-37.2903-104.9731-2-14-			0-C29736			88300	-0.29	701	10140	70	-95	15.9	49	-2.5	7	1.5	35400	5.7	24300	-37	0.5	
08-37.2750-104.9667-2-13-			0-C29737			77600	-0.23	698	11030	79	-87	13.5	47	4.1	8	1.8	31320	8.0	28210	-28	0.8	
08-37.2669-104.9781-2-14-			0-C29738			71650	-0.23	813	8093	70	-84	13.5	32	-2.0	6	1.6	27340	8.6	25930	72	0.7	
08-37.2564-104.9064-2-15-			0-C29740			65690	-0.20	949	6668	64	-94	7.2	28	-1.7	9	2.2	22880	36.2	33580	-24	1.7	
08-37.2575-104.9050-2-15-			0-C29741			65300	-0.15	784	4557	44	-81	6.9	18	-1.5	6	1.3	17380	17.9	33740	-26	0.8	
08-37.2956-104.8847-2-12-			0-C29742			68700	-0.19	960	10060	80	-91	9.5	28	-1.7	7	1.7	21280	15.8	27760	48	0.9	
08-37.2942-104.8864-2-12-			0-C29743			72410	-0.26	850	12470	60	-97	13.7	38	-2.3	6	1.9	29660	9.8	32200	-32	0.8	
08-37.3247-104.8961-2-97-			0-C29744			87810	-0.29	947	8311	76	-91	14.7	41	5.3	7	2.0	36550	5.5	25510	-31	0.5	
08-37.5150-105.3019-2-12-			0-C29745			71760	-0.06	772	26460	68	-114	15.4	32	2.2	4	2.1	44360	11.9	20740	41	0.5	
08-37.5144-105.2919-2-15-			0-C29746			68900	-0.20	866	26180	94	-109	21.3	37	-1.8	4	2.3	54400	11.8	19420	-22	0.5	
08-37.5169-105.2769-2-15-			0-C29747			69060	-0.26	630	30910	219	-114	21.9	50	2.2	8	4.4	55420	20.2	16680	147	0.8	
08-37.5217-105.2744-2-12-			0-C29748			73770	-0.28	726	22580	65	-124	14.2	46	-2.6	6	2.1	38050	11.9	20750	-33	0.6	
08-37.5231-105.2578-2-12-			0-C29749			75440	-0.21	720	17290	58	-108	13.0	41	3.4	5	1.8	34540	7.4	24640	-32	0.5	
08-37.5211-105.2322-2-12-			0-C29750			70540	-0.21	839	19290	75	-106	13.2	44	3.2	5	2.0	28940	7.6	22760	49	0.5	
08-37.5197-105.2122-2-12-			0-C29751			73300	-0.26	867	15370	92	-103	14.0	44	-2.5	6	2.5	35570	10.9	21190	74	0.6	
08-37.5139-105.2131-2-12-			0-C29752			73090	-0.27	913	14640	51	-120	10.2	34	2.1	5	1.6	28750	8.1	21300	-31	0.4	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO																													
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																																												
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn																														
08-37.5247-105.3906-2-12-	08-37.5386-105.3833-2-14-	08-37.5575-105.3850-2-12-	08-37.5667-105.3831-2-12-	08-37.5675-105.3817-2-12-	08-37.5006-105.3958-2-12-	08-37.6208-105.4711-2-12-	08-37.9475-105.6000-2-12-	08-37.9217-105.5728-2-12-	08-37.9017-105.6064-2-12-	08-37.9481-105.5350-2-11-	08-37.9406-105.5283-2-11-	08-37.9186-105.5042-2-12-	08-37.8892-105.5025-2-12-	08-37.9308-105.5106-2-11-	08-37.9764-105.5061-2-12-	08-37.9639-105.5458-2-12-	08-37.4961-105.3336-2-15-	08-37.9167-105.0019-2-12-	08-37.9675-105.0181-2-12-	08-37.9744-105.0844-2-12-	08-37.9761-105.0847-2-12-	08-37.8850-105.0914-2-12-	08-37.2514-105.0353-2-12-	08-37.3461-105.0892-2-12-	08-37.6717-104.9931-2-11-	08-37.6389-104.9942-2-15-	08-37.3264-104.8853-2-12-	08-37.3081-104.9378-2-12-	08-37.3775-104.8817-2-11-	08-37.3758-104.8819-2-12-	08-37.3561-104.9150-2-12-	08-37.3278-104.9506-2-12-	08-37.3269-104.9456-2-12-	08-37.3000-104.9631-2-13-	08-37.2903-104.9731-2-14-	08-37.2750-104.9667-2-13-	08-37.2669-104.9781-2-14-	08-37.2564-104.9064-2-15-	08-37.2575-104.9050-2-15-	08-37.2956-104.8847-2-12-	08-37.2942-104.8864-2-12-	08-37.3247-104.8961-2-97-	08-37.5150-105.3019-2-12-	08-37.5144-105.2919-2-15-	08-37.5169-105.2769-2-15-	08-37.5217-105.2744-2-12-	08-37.5231-105.2578-2-12-	08-37.5211-105.2322-2-12-	08-37.5197-105.2122-2-12-	08-37.5139-105.2131-2-12-	
0-C29665	0-C29666	0-C29667	0-C29668	0-C29669	0-C29670	0-C29671	0-C29672	0-C29673	0-C29674	0-C29675	0-C29677	0-C29678	0-C29679	0-C29680	0-C29681	0-C29682	0-C29691	0-C29713	0-C29714	0-C29715	0-C29716	0-C29717	0-C29718	0-C29719	0-C29720	0-C29721	0-C29723	0-C29724	0-C29725	0-C29726	0-C29727	0-C29730	0-C29731	0-C29734	0-C29736	0-C29737	0-C29738	0-C29740	0-C29741	0-C29742	0-C29743	0-C29744	0-C29745	0-C29746	0-C29747	0-C29748	0-C29749	0-C29750	0-C29751	0-C29752	
14140	15190	12130	16690	21270	17600	26440	18300	12800	11550	24920	11570	28330	27330	12450	19440	21720	20270	24850	15760	10400	19620	12710	13710	9767	9809	8878	9374	4805	9595	9940	9689	7413	11080	13170	22480	13380	10740	5801	5913	8436	11280	17200	17350	15280	17830	21340	17200	16620	15210	12090	
800	742	932	569	1000	852	738	866	597	662	387	231	2026	1006	468	867	803	1486	1133	1013	1195	1613	777	648	494	470	1128	580	436	545	688	635	521	562	693	618	525	519	654	414	427	775	666	909	977	1234	777	724	648	665	608	
19120	18510	20330	16390	22890	19680	21580	16890	19550	23040	21560	8871	15270	18360	12090	16440	16450	18260	17640	19840	19690	17160	22270	17670	23690	22270	14010	13360	20020	12030	12900	16320	16160	16660	17000	12160	13830	16840	15950	16210	17810	15460	8812	22400	22400	22580	20530	21570	20710	20780	25510	
36	-45	-44	60	-34	-47	-44	-46	-38	-45	-46	-59	-48	-56	100	79	84	-51	-56	90	77	-64	-46	75	65	79	-51	57	55	79	78	57	-43	-6	-6	-43	66	-38	99	95	98	83	49	-5	-7	-49	-38	57	-5	-46	85	
-5	-7	-7	-2	-5	-7	-7	-7	-6	-7	-7	-9	-7	-8	-7	-6	-6	-7	-9	7	-6	-10	-7	-5	-4	-5	-7	-6	-3	-6	-7	-5	-6	-6	-6	-6	-7	-6	-6	-5	-7	-6	-5	-7	-6	-5	-7	-5	-6	-6		
12.7	15.3	12.0	12.3	16.9	16.4	12.7	15.0	8.8	12.2	11.8	10.1	13.1	17.1	12.7	15.1	14.1	17.0	21.6	17.7	12.9	23.1	11.4	8.9	6.8	7.7	13.0	8.8	4.0	9.8	9.0	6.7	7.2	9.2	9.0	6.7	7.2	9.2	9.0	7.4	5.9	7.1	10.0	12.7	12.7	12.4	12.2	10.5	13.4	9.3		
5.3	8.6	5.5	7.9	12.0	9.2	-3.9	13.4	9.2	11.5	-3.1	85.4	17.8	28.4	7.1	7.0	8.3	6.0	9.1	15.8	12.4	16.3	7.7	6.3	4.6	6.3	10.0	6.1	3.1	7.1	5.9	-2.4	7.0	-2.9	3.8	6.7	7.3	-2.9	9.4	5.9	3.2	7.3	7.7	6.3	6.0	15.3	4.8	6.1	6.6	6.6	6.1	9.3
-302	343	-394	-263	336	544	-356	-333	-307	-278	-304	-296	626	381	-280	-314	-319	565	-429	-337	-382	-509	-363	-286	-265	307	-373	-300	-236	-267	-348	-291	-270	-264	-362	-319	-281	-257	-301	-235	-268	-325	-360	439	805	-353	-388	-314	374	-301	-342	
-1	-1	-2	-1	-1	-1	-1	-1	-1	-1	-1	6	-1	2	-1	-1	-1	-1	-2	1	-1	2	-1	-1	-1	-1	2	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	3	2	2	-1	-1	-1	2	-1	-1	-1	-1	-1	1	
1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-2	-2	2	-1	-1	-1	6.4	12.0	19.6	11.8	13.7	10.0	9.4	7.9	7.7	19.2	11.1	4.5	8.8	10.3	7.4	8.9	9.9	9.9	9.7	12.8	9.8	13.3	7.5	10.2	9.8	7.2	11.5	7.6	8.4	8.5	8.6	10.6	7.3		
6.2	5910	4357	4809	6665	5795	3884	4035	5325	8039	5190	2693	8602	9917	6369	5266	5534	8299	5127	5300	5534	6482	5561	3852	4229	3794	8884	4887	2365	4611	3886	4414	5059	3359	4188	5069	4514	3526	3483	3289	4539	4024	5146	4635	4598	4692	5488	4290	4277			
96	86	86	91	111	99	81	135	69	131	83	121	123	154	96	128	118	272	105	111	84	130	103	104	92	69	197	74	32	69	78	61	78	63	65	97	85	65	49	40	60	65	117	110	103	83	77	84	64			
4.4	6.2	-3.7	5.9	7.6	7.0	-3.7	7.5	4.6	-4.0	-4.8	9.0	-4.8	-4.4	-3.9	7.2	5.2	-3.6	8.2	11.0	9.2	11.0	5.5	5.1	6.1	3.4	7.4	5.5	2.7	5.7	5.5	5.5	5.5	-3.3	-3.8	-4.0	7.7	6.4	5.7	5.7	5.3	-5.5	3.9	-4.1	-3.1	-3.2	4.5	-3.2				
-37	121	124	92	-39	165	115	131	120	117	125	154	107	110	139	70	-43	171	170	161	179	1873	153	99	72	165	99	118	41	-20	-92	103	53	60	183	129	-44	-50	-37	-35	59	-97	-106	152	65	-56	-65	123	94			
0.919	0.631	0.995	0.752	0.742	0.614	1.062	4.304	1.208	0.521	1.804	36.238	1.872	1.435	0.648	0.887	1.134	0.437	0.617	0.298	0.421	0.365	0.341	0.488	0.538	0.304	0.269	0.455	0.627	0.514	0.486	0.507	0.576	0.487	0.714	0.823	0.510	0.935	0.634	0.721	0.538	0.529	0.461	0.392	0.372	0.242	0.513	0.444	0.473	0.593	0.527	

[illegible]

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
08	-37.5147	-105.2114	-2-12-	0-C29753			-5	-5	-5	23	-20	-15	14	-10	-15	2	35	
08	-37.5531	-105.2036	-2-11-	0-C29754			-5	-5	-5	32	-20	21	6	-10	-15	3	34	
08	-37.5472	-105.2122	-2-12-	0-C29755			-5	-5	-5	37	-20	-15	9	-10	-15	3	35	
08	-37.3953	-105.3314	-2-15-	0-C29756			-5	-5	-5	34	-20	42	7	-10	-15	2	36	
08	-37.4150	-105.3183	-2-11-	0-C29757			-5	-5	-5	40	-20	-15	-5	-10	-15	1	28	
08	-37.4597	-105.2953	-2-12-	0-C29758			-5	-5	-5	30	-20	-15	-5	-10	-15	3	36	
08	-37.4786	-105.2606	-2-12-	0-C29759			-5	-5	-5	45	-20	-15	-5	-10	-15	3	29	
08	-37.4531	-105.2856	-2-15-	0-C29760			-5	-5	-5	34	-20	-15	13	-10	-15	3	36	
08	-37.4475	-105.2972	-2-15-	0-C29761			-5	-5	-5	46	-20	-15	10	-10	-15	3	40	
08	-37.4461	-105.2778	-2-12-	0-C29762			-5	-5	-5	27	-20	21	6	-10	-15	3	46	
08	-37.4414	-105.2586	-2-12-	0-C29763			-5	-5	-5	38	-20	21	7	-10	26	3	44	
08	-37.4394	-105.2569	-2-12-	0-C29764			-5	-5	-5	41	-20	15	-5	12	-15	3	22	
08	-37.3747	-105.2942	-2-12-	0-C29765			-5	-5	-5	37	-20	35	12	-10	15	3	34	
08	-37.3797	-105.2642	-2-12-	0-C29766			-5	-5	-5	27	-20	20	12	-10	-15	3	40	
08	-37.3803	-105.2650	-2-12-	0-C29767			-5	-5	-5	36	-20	19	15	-10	-15	3	38	
08	-37.4578	-105.2942	-2-12-	0-C29768			-5	-5	-5	25	-20	40	8	-10	-15	3	37	

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
08-37.5147-105.2114-2-12-						0-C29753	69920	-0.20	657	16290	65	-106	12.7	36	-1.9	5	1.8	31000	10.1	24470	-28	0.5
08-37.5531-105.2136-2-11-						0-C29754	74520	-0.21	841	15160	81	-100	13.8	51	2.7	5	1.8	29080	12.0	23210	-27	0.6
08-37.5472-105.2122-2-12-						0-C29755	75840	-0.25	820	12270	78	-97	16.1	68	2.8	6	1.9	33200	8.9	24220	59	0.5
08-37.3953-105.3314-2-15-						0-C29756	68130	-0.24	691	24070	81	-105	18.5	62	3.3	6	2.7	56590	19.5	21400	75	0.9
08-37.4150-105.3183-2-11-						0-C29757	52590	-0.32	434	25590	41	165	28.3	37	-3.0	4	1.6	71790	3.9	-8522	-44	-0.3
08-37.4597-105.2953-2-12-						0-C29758	69890	-0.22	780	23760	95	-108	14.7	57	-2.1	6	2.6	46320	22.6	23610	49	0.8
08-37.4786-105.2606-2-12-						0-C29759	70900	-0.29	699	23560	125	-107	19.7	72	-2.8	7	2.9	57530	26.9	25130	78	1.1
08-37.4531-105.2856-2-15-						0-C29760	69030	-0.26	589	18010	82	-111	17.2	52	3.0	6	2.0	61590	28.3	21720	60	0.7
08-37.4475-105.2772-2-15-						0-C29761	74280	-0.26	738	20880	72	-115	16.0	35	3.6	6	1.7	37000	5.5	20650	-38	0.6
08-37.4461-105.2778-2-12-						0-C29762	70040	-0.21	859	23310	98	-104	14.1	35	-2.0	6	2.7	40080	19.6	22570	55	0.8
08-37.4414-105.2586-2-12-						0-C29763	72480	-0.29	800	22920	95	-109	15.6	55	-2.7	7	2.7	43160	19.3	20250	-37	0.7
08-37.4394-105.2569-2-12-						0-C29764	75700	-0.27	818	27180	60	-125	16.0	42	-2.5	5	2.1	36920	12.5	21940	-29	0.4
08-37.3747-105.2942-2-12-						0-C29765	71000	-0.22	713	25460	87	-108	17.0	51	3.3	7	2.9	45170	23.3	25160	67	0.5
08-37.3797-105.2542-2-12-						0-C29766	73460	-0.21	986	17760	112	-113	9.9	35	-1.9	7	3.2	32430	16.5	25840	56	0.9
08-37.3803-105.2650-2-12-						0-C29767	67420	-0.34	838	26470	106	-120	18.6	54	-3.2	8	3.6	54510	20.9	22190	109	0.9
08-37.4578-105.2942-2-12-						0-C29768	66450	-0.07	725	24630	88	-110	15.1	62	3.0	6	2.2	60550	31.0	19170	50	0.7

APPENDIX I (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)														
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn
08	-37.5147	-105.2114	-2-12-	0-C29753	10510	611	24470	-37	-5	10.9	5.5	-290	-1	-1	6.9	4037	85	-2.9	83	0.694	
08	-37.5531	-105.2036	-2-11-	0-C29754	11490	597	19810	68	-5	10.3	6.9	525	-1	-1	10.0	4220	73	4.6	111	0.410	
08	-37.5472	-105.2122	-2-12-	0-C29755	10810	589	20940	-44	-6	12.1	6.6	439	-1	-1	9.9	4308	81	-3.9	-47	0.412	
08	-37.3953	-105.3314	-2-15-	0-C29756	20090	786	18510	-45	-6	14.4	7.2	-331	-1	-1	10.0	6372	137	4.4	91	0.376	
08	-37.4150	-105.3183	-2-11-	0-C29757	15280	2561	10270	-67	-8	9.5	6.7	-675	-3	-1	4.9	3729	62	-5.1	-48	0.804	
08	-37.4597	-105.2953	-2-12-	0-C29758	14890	856	20170	-41	-6	10.8	8.3	436	-1	-1	9.5	6701	127	-3.2	-10	0.456	
08	-37.4786	-105.2606	-2-12-	0-C29759	22020	934	19560	-53	-8	16.8	8.7	-347	-1	-2	13.9	6078	114	7.6	173	0.568	
08	-37.4531	-105.2856	-2-15-	0-C29760	16720	771	18210	-49	-6	11.0	4.3	388	-1	-1	11.6	6760	158	4.9	93	0.429	
08	-37.4475	-105.2972	-2-15-	0-C29761	18720	814	18110	-47	-7	11.8	5.3	-368	-2	-1	9.2	4949	89	-3.6	163	0.613	
08	-37.4461	-105.2778	-2-12-	0-C29762	16650	618	22390	54	-5	12.4	6.0	412	-1	-1	8.7	5869	109	8.8	53	0.497	
08	-37.4414	-105.2586	-2-12-	0-C29763	17430	683	21410	91	-7	13.9	8.1	-329	-1	-1	10.5	5373	99	-4.1	108	0.419	
08	-37.4394	-105.2569	-2-12-	0-C29764	17250	672	21400	58	-7	11.5	3.7	955	-1	-2	8.5	6609	117	6.3	181	0.478	
08	-37.3747	-105.2942	-2-12-	0-C29765	19420	763	22090	-39	-6	13.6	8.2	-313	-1	2	9.2	4947	117	6.9	176	0.749	
08	-37.3797	-105.2642	-2-12-	0-C29766	11730	836	23280	-35	-5	11.7	9.7	-336	1	1	10.6	4299	64	6.4	101	0.862	
08	-37.3803	-105.2650	-2-12-	0-C29767	25250	1117	18180	-59	-9	17.5	7.5	-406	-3	-1	10.5	5826	130	-4.9	155	1.897	
08	-37.4578	-105.2942	-2-12-	0-C29768	18870	869	19550	55	-2	12.7	7.5	-337	-1	-1	10.5	7310	168	5.3	110	0.516	

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APPENDIX II

STANDARD LASL HSSR PROCEDURES AND CODES

Appendix II-A

Summary of Standard LASL HSSR Field and Analytical Procedures

APPENDIX II-A

SUMMARY OF STANDARD LASL HSSR FIELD AND ANALYTICAL PROCEDURES

I. FIELD PROCEDURES

Water Sampling

Water samples are collected first, directly from the source wherever possible, filtered through a 0.45- μ membrane filter (except in Alaska where this step is omitted) directly into one each, prewashed and sealed, 41-ml reactor "rabbit" and 25-ml vial (both polyethylene). Water samples in both the rabbit and vial are then acidified to a pH <1 with 8N reagent-grade HNO_3 . All sample containers are doubly labeled with preprinted, adhesive labels carrying the same sample location number as that preprinted on the field data form. Springs are sampled as near to their point of emergence as possible; stream waters are taken from the fast-flowing current away from the bank; ponds (including small lakes and reservoirs) are sampled from just below the surface, near their center; and well waters are taken near the wellhead if the well is pumping or from a holding tank if not.

Sediment Sampling (Wet or Dry)

Following the collection of the water sample (if any), enough fine-grained, organic-rich, water-transported sediment to yield a composite sample of 25 g after processing (as indicated below) is taken from beneath the water level (where water exists) at three adjacent spots at each spring or stream location. The sediment is put into a new, clean, and originally sealed, rip-top polyethylene bag which is then properly double-labeled for delivery (with the field data form) to the contractor's drying facility. After drying at $<100^\circ\text{C}$, each sample is sieved through a 100-mesh stainless steel sieve. The minus 100-mesh fraction is put into a prewashed, 25-ml polyethylene vial which is then appropriately double-labeled (using labels from the data form) and sealed for shipment to the LASL. In the case of lakes sampled in Alaska, the sediment is taken from as near the center of each lake as possible by dropping a tethered, stainless steel bottom sampler overboard from a pontoon-equipped helicopter. Here, only a bottom sample from a single location is taken (i.e., it is not a composite) and sampling is limited to lakes less than 10 m deep and about 0.3 to 2.0 km in least horizontal dimension. The sampler is rinsed before each use and the raw sample is put into a clean polyethylene bag, labeled, and treated as above.

Field Measurements

The air temperature, read in the shade at the time of sampling, is recorded to the nearest whole degree Celsius. The water temperature is measured in the source water and recorded to the nearest one-half degree Celsius. The pH of the source water is measured with a calibrated, portable pH meter and recorded to the nearest one-tenth of a pH unit. The conductivity (in $\mu\text{mho/cm}$) of the source water is measured with a calibrated, temperature-compensated (25°C), portable meter. The scintillometer readings are measured with a portable scintillometer on a flat, dry spot within a few meters of the sample location at spring or stream sites. Two readings are recorded, the first with a radiation shield in place (blocking out ground radiation) and the second

with the shield removed. The readings (in counts/s) are converted by computer, using measured calibration factors, to the equivalent uranium (eU) value in the data listings. Special measurements such as dissolved oxygen are made with a calibrated, commercially available, portable meter and probe. In lakes, the water temperature, pH, conductivity, and (special) dissolved oxygen are usually all measured with a single, digital-readout unit, utilizing a parameter selector switch and a composite probe that is lowered from the sampling helicopter to just below the water's surface. Care is taken to see that these measurements are made before the bottom sediment is disturbed.

Field Observations

These represent the best judgment of the field sampler at a location and include general descriptions of the local bedrock, sediment, water, vegetation, terrain, weather, possible contaminants, and well configuration, if applicable. Because these observations are subjective and made quickly in the field, they should be held subordinate to formally documented information such as that provided by published topographic or geologic maps, etc.

Sample Location Verification

Each contractor is supplied field maps with the desired sample types and general locations symbolically premarked at the LASL. In the lower states, the field maps are generally 1:24 000-scale or 1:62 500-scale USGS topographic maps; in Alaska, they are normally 1:250 000-scale NTMS quadrangle maps, also available from the USGS. As each location is sampled, a unique sample location number, preprinted on transparent adhesive labels (also used for labeling the samples) that are provided with each identically numbered field data form, is placed on top of the precisely marked point representing the sample site on the field map. When a desired sample as specified cannot be obtained, an identical or alternate sample type (as near as possible to the original one) is picked, and the new sample type and/or location is/are marked on the field map and properly labeled as above. The latitude and longitude of each location is then computed by the sampling contractor within 48 h of taking each sample. Every location is later checked (and corrected if necessary) at the LASL by digitizing the sample locations on each map and comparing them to those computed in the field. The latitudes and/or longitudes are corrected if the field-computed locations are displaced by more than 300 m from the locations marked on the field maps. A final visual check of sample locations is made by overlaying computer-produced location plots on the field maps used. The computer program for generating the Universal Transverse Mercator map projection overlays is described by Cheadle (1977).

II. ANALYTICAL PROCEDURES

Uranium Determination in Sediment Samples by DNC

All sediment samples are analyzed for total uranium by DNC. A split of each sample (dried and sieved as described) is transferred to a clean 4-ml rabbit, weighed, and its weight (less that of the rabbit) recorded along with the appropriate location number. These rabbits are then loaded into a 50-sample transfer clip. The reactor pneumatic transfer system and background radiation levels are checked, and standards are run for calibration. The transfer clip is installed and the samples are cycled through the system (typically, a 20-s irradiation, 10-s delay, and 30-s count cycle is used).

The uranium concentration is automatically measured, converted to parts per million (ppm), and entered into the data base. The lower limit of detection of this method is 0.01 ppm uranium, far below the range of uranium concentrations in natural sediment samples. Above the 1 ppm level, the uranium values in sediment measured by DNC at the LASL have a one-sigma error of less than 4%. The specially designed delayed-neutron detectors, built by the LASL and used for these analyses, are described by Balestrini et al (1976).

Elemental Determinations in Sediment Samples by Energy Dispersive X-Ray Fluorescence

A computer-controlled, energy-dispersive x-ray fluorescence system is used to determine Ag, Bi, Cd, Cu, Nb, Ni, Pb, Sn, and W in sediments. The system consists of an automatic 20-position sample changer, a lithium-drifted silicon detector, a pulsed molybdenum transmission-target x-ray tube, a multi-channel analyzer, and a minicomputer. The sediment samples are prepared for analysis by grinding 6 g of each minus 100-mesh sample to a minus 325-mesh powder. A computer program positions the 6-g samples in the x-ray beam, unfolds overlapping peaks, determines peak intensities for each element, and calculates the ratio of the intensity of each peak to that of the molybdenum K_{α} Compton peak. Concentrations of each element are then calculated using equations obtained by analyzing prepared standards. Detection limits are: 5 ppm for Ag, Bi, Cd, and Pb; 10 ppm for Cu and Sn; 15 ppm for Ni and W; and 20 ppm for Nb. When an analysis results in an elemental concentration that is below the detection limit, a minus sign preceding the value of the detection limit for that element is inserted in the data listings. The relative standard deviation is 10% or less at the 100-ppm level and 20% or less at the 20-ppm level. Details of the method and equipment used are described by Hansel and Martell (1977).

Beryllium and Lithium Determinations in Sediment Samples by Arc-Source Emission Spectrography

A 5-mg portion of the -325-mesh sample that has already been analyzed by x-ray fluorescence is mixed with 10 mg of a buffer consisting of one part graphite and one part SiO_2 . The sample/buffer mixture is placed into a graphite electrode that is used as the anode of a dc arc having a short circuit current of 6A for 10 s, then 17A for 50 s. Photomultiplier tubes in a direct-reading spectrograph are used to measure the second order 313.0-nm line of Be, the first order 670.7- and 610.3-nm lines of Li, the background spectra near these lines, and the 327.6-nm line of V. The 670.7-nm Li line is used for Li concentrations up to 10 ppm and the 610.3-nm line of Li is used for concentrations above 10 ppm. The V line is used to correct the Be value when V is present. The signals from the photomultiplier tubes are read by a digital voltmeter and are processed by a desk-top calculator. The results are simultaneously printed on paper and written on cassette tape for later transmission to a computer data file. The elemental concentrations of Be and Li are determined from the spectra, based on the results of previously run calibration standards. The lower detection limit for both elements is 1 ppm. When an analysis results in an elemental concentration that is below the detection limit, a minus sign preceding the value of the detection limit for that element is inserted in the data listings. Precision at the lower detection limit is $\approx 50\%$ for both elements and improves to $\approx 25\%$ at one order of magnitude above the lower limit.

Elemental Determinations in Sediment Samples by NAA

Immediately upon completion of the uranium analysis of sediment samples by DNC, the same 4-ml sediment splits are entered into the NAA sequence. The concentrations of 31 additional elements are determined by this procedure. The full DNC/NAA timing sequence used at the LASL for each sediment sample is: 20-s irradiation, 10-s delay, 30-s DNC analysis, 20-min delay, 500-s γ -ray count for short-lived radionuclides, 96-s re-irradiation, 14-day delay, and finally a 1000-s γ -ray count for long-lived radionuclides. The γ -ray counting is done by lead-shielded Ge(Li) detectors; the 4096-channel γ -ray data are recorded and subsequently analyzed for each individual element by computer. The analytical data for each sample are automatically printed out along with the associated statistical errors. The lower detection limits for the various elements as reflected by the "less than" values (denoted by a minus sign in front of a concentration) in the data listings are the values for the individual elements at which the statistical counting error approaches 50%. Current "typical" lower detection limits for the elements determined by NAA are reported in Nunes and Weaver (1978); however, the actual detection limit for an element depends upon the composition of the sample, and this limit may be higher or lower than the typical value. At concentration values one order of magnitude above the lower detection limits, the relative errors are generally less than 10%.

Appendix II-B

Explanation of Codes Used in Appendix I

APPENDIX II-B

EXPLANATION OF CODES USED IN APPENDIX I

DOE SAMPLE NUMBER

STATE: A two-digit Federal Information Processing Standards (FIPS) code that designates the state from which each sample came. For the states being sampled by the LASL, the code numbers are:

Alaska	= 02	Montana	= 30	South Dakota	= 46
Arizona	= 04	Nebraska	= 31	Texas	= 48
Colorado	= 08	New Mexico	= 35	Utah	= 49
Idaho	= 16	North Dakota	= 38	Wyoming	= 56
Kansas	= 20	Oklahoma	= 40		

LATITUDE AND LONGITUDE: Sample location, in degrees and decimal degrees to four places. Although generally much better, locational accuracy cannot be guaranteed closer than about 300 m (1000 ft).

DOE LAB: A Department of Energy (DOE) one-digit identifier designating the DOE laboratory responsible for taking the samples and data shown in the listings, as well as providing the analyses of the uranium and other elemental concentrations, if any. The LASL is designated by the numeral 2.

SAMPLE TYPE: A two-digit identifier which specifically designates the pertinent properties defining the sample type to which the listed data relate. For explanation of the code used, refer to the attached "Key to Sample Types," in section C of this appendix.

REPLICATE: A three-digit sequential number assigned to indicate a multiple sample of a single sample type from a single location. The largest number in use indicates the most recent sample taken and there will always be all smaller sequential numbers representing earlier samples back to 0, which is the initial sample from any given location. Except in the case of special studies, there will be no replicate samples and this entry will therefore be a single zero.

LASL SAMPLE LOCATION NUMBER AND FIELD DATA

LASL SAMPLE LOCATION NUMBER: A unique six-place alphanumeric designator permanently assigned by the LASL to every location sampled. For internal use, these numbers are assigned in blocks to the various areas individually treated and reported upon, and therefore serve to generally locate the samples within various areas for which the LASL is responsible as follows.

<u>Location Numbers</u>	<u>State</u>
N00 001 through N99 999	= Principally New Mexico
C00 001 through C99 999	= Principally Colorado
W00 001 through W99 999	= Principally Wyoming
M00 001 through M99 999	= Principally Montana
A00 001 and above	= Alaska only
L00 001 and above	= Areas beyond the western boundary of LASL's region as established by DOE in 1977.
Ø00 001 and above	= Areas beyond the eastern boundary of LASL's region as established by DOE in 1977.

TIME SAMPLED: The DATE the sample was taken, in terms of the number of the MONTH, followed by the DAY and finally the YEAR, separated by slashes, and then the TIME it was taken on that date to the nearest whole HOUR on a 24-hour clock.

AIR TEMPERATURE: The temperature measured in the shade at the time of sampling, to the nearest whole degree Celsius (°C).

WATER TEMPERATURE: The temperature measured in the sample water (in situ whenever possible) at the time of sampling, to the nearest one-half of one degree Celsius (0.1°C).

COMMENTS: A "C" in this column indicates that some secondary comment not included in the listing was recorded at the sample location. This information will be used by the LASL in evaluating the data, and if appropriate, it will be mentioned in the final report.

SPECIAL MEASUREMENTS: An "S" in this column indicates that one or more field measurements in addition to those listed were made at the sample location. A description of any special parameters measured and the measured value at each sample location will be included in the final HSSR survey report on the area.

pH: The pH, to the nearest one-tenth (0.1) of a pH unit, measured in the water at the sample location at the time of sampling.

CONDUCTIVITY: The conductivity, in $\mu\text{mho/cm}$, measured in the water at the sample location at the time of sampling.

SCINTILLOMETER: The equivalent uranium (eU), in ppm, as measured on a flat ground surface within 10 m of the sample location using a scintillometer fitted with a differential gamma sampler (DGS). The effect of the DGS is to introduce a fixed geometry into the measurement and remove the background.

ROCK TYPE: The single digit in this column provides a general description of the dominant lithologic regime at or near the sample location, as given below.

1 = Sedimentary	3 = Igneous
2 = Metamorphic	4 = Unknown

ROCK COLOR: The single digit in this column provides an indication of the observed dominant color of local bedrock exposures at or near the sample location, as given below.

1 = White/Buf	4 = Pink/Red	7 = Gray
2 = Yellow	5 = Green	8 = Black
3 = Orange	6 = Brown	9 = Other

SEDIMENT TYPE: The single digit in this column provides a subjective evaluation of the dominant sediment type at the sample location, as given below.

1 = Boulders	4 = Sand	7 = Other
2 = Cobbles	5 = Mud	
3 = Gravel	6 = Muck	

SEDIMENT COLOR: The single digit in this column indicates the observed dominant color of the bottom sediment (stream channel, lake bed, etc.) at the sample location at the time of sampling, as given below.

1 = White/Buf	4 = Pink/Red	7 = Gray
2 = Yellow	5 = Green	8 = Black
3 = Orange	6 = Brown	9 = Other

WATER FLOW: The single digit in this column provides a subjective evaluation of the water movement at the sample location at the time of sampling, as given below.

1 = Stagnant	3 = Moderate	5 = Torrent
2 = Slow	4 = Fast	

WATER LEVEL: The single digit in this column provides a subjective estimate of water quantity at the time of sampling, relative to its usual condition at the sample location, as given below.

1 = Dry	3 = Normal	5 = Flood
2 = Low	4 = High	

WATER COLOR: The single digit in this column provides a subjective evaluation of suspended load in the sample water, as given below.

1 = Clear	3 = Cloudy	5 = Algal
2 = Murky	4 = Muddy	6 = Other

STREAM CHANNEL: The single digit here gives a subjective evaluation of stream channel character at the sample location at the time of sampling, as given below.

1 = Depositing	2 = Eroding	3 = Unknown
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VEGETATION TYPE: The single digit in this column provides a subjective evaluation of the dominant plant type in the vicinity of the sample location, as given below.

1 = Conifers	4 = Grass	7 = Other
2 = Deciduous	5 = Moss	
3 = Brush	6 = Marsh	

VEGETATION DENSITY: The single digit in this column provides a subjective estimate of the amount of plant cover in the vicinity of the sample location, as given below.

1 = Barren	3 = Moderate	5 = Very Dense
2 = Sparse	4 = Dense	

RELIEF: The single digit in this column provides a subjective evaluation of the topography within a few hundred meters of the sample location, as given below.

1 = Flat	3 = Gentle (15-60 m)	5 = High (>300 m)
2 = Low (<15 m)	4 = Moderate (60-300 m)	6 = Other

WEATHER: The single digit in this column gives the observed climatic condition at the sample location at the time of sampling, as given below.

1 = Clear	3 = Overcast	5 = Snowy
2 = Partly cloudy	4 = Rainy	6 = Other

OWNERSHIP: Not used.

CONTAMINANTS: The single digit here indicates known or suspected local factors likely to influence analytical results, as given below.

1 = None	4 = Industry	7 = Urban
2 = Mining	5 = Sewage	8 = Recreation
3 = Agriculture	6 = Power generation	9 = Other

WELL TYPE: If a well water sample, the single digit in this column provides a general description of the type of well from which the sample was taken, as given below.

1 = Windmill-stock	4 = Suction pump	7 = Hand bail
2 = Windmill-domestic	5 = Jet pump	8 = Unknown
3 = Submersible pump	6 = Large turbine	9 = Other

WELL DIAMETER: When shown, the one or two digits in this column give the measured or estimated inside diameter, in inches, of the well casing from which the water sample came.

WELL DEPTH: When shown, the one, two, or three digits in this column give the total drilled depth from the surface, in feet, of the well from which the sample came. Three 9s in this column indicates a well depth greater than 1000 ft.

WATER DEPTH: When shown, the one, two, or three digits in this column give the known depth, in feet, from the surface to the standing water in the well. A -1 in this column indicates a flowing artesian well.

URANIUM CONCENTRATION: The value given in this column is the analytically derived value of the total uranium concentration found in the water sample (in ppb) or in the sediment sample (in ppm). Those uranium concentrations in water that are shown with an asterisk were measured using the DNC method, while those without an asterisk were determined fluorometrically. The uranium analyses in water samples as determined by both of these methods at the LASL are directly comparable, as noted in section A of this appendix.

REMAINING ENTRIES: The data presented in the remaining entries of the listings utilize no codes as such and are described in the respective column headings. However, there are four conventions used throughout the listings of elemental concentrations: a) all concentrations in waters are reported in ppb; b) all concentrations in sediments are reported in ppm; c) concentrations "less than" the lower detection limit are denoted by a minus sign before this limit for the specific sample (except for fluorometrically determined uranium in waters, the convention for which is described in section A of this appendix); and d) a blank space in the data listings for any elemental concentration signifies that no analytical result was obtained for that element.

Appendix II-C

Key to Sample Types Listed in Appendix I

APPENDIX II-C

KEY TO SAMPLE TYPES LISTED IN APPENDIX I

This numerical key provides the necessary tie between the specific type or form of each sample taken and each individual suite of field and laboratory data to which the sample relates. It defines the various sample types collected by the LASL in the DOE HSSR for uranium.

The two-digit key number assigned to each sample type designates three distinct properties of the samples taken. These properties are: (a) The general sample source (spring, stream, dry stream, etc.); (b) The sample medium (water or sediment); and (c) The treatment given the sample in the field or laboratory prior to its analysis by the LASL.

The key numbers are inserted in the sample type columns of the specially formatted DOE sample numbering system to positively identify the sample type for all LASL sample data submitted.

<u>KEY NO.</u>	<u>SOURCE / MEDIUM / TREATMENT</u>
11 -	<u>Wet spring sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -100 mesh through stainless steel sieves.</u>
12 -	<u>Wet stream sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -100 mesh through stainless steel sieves.</u>
13 -	<u>Wet natural pond sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -100 mesh through stainless steel sieves.</u>
14 -	<u>Wet artificial pond sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -100 mesh through stainless steel sieves.</u>
15 -	<u>Dry stream sediment sample dried at $\leq 100^{\circ}\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.</u>
96 -	<u>Dry natural pond sediment sample dried at $\leq 100^{\circ}\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.</u>
97 -	<u>Dry artificial pond sediment sample dried at $\leq 100^{\circ}\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.</u>
99 -	<u>Dry spring sediment sample dried at $\leq 100^{\circ}\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.</u>

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The LASL sample location numbers above are the same as those used in Appendixes I A and I B except the leading two alphanumeric characters have been dropped.

SAMPLE LOCATION OVERLAY FOR THE TRINIDAD NTMS QUADRANGLE, COLORADO

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SYMBOLS

LEGEND

CONCENTRATIONS (ppm)

- ◇ WET SPRING
- WET STREAM
- △ WET NATURAL LAKE OR POND
- ▽ WET ARTIFICIAL LAKE OR POND
- ⊠ DRY STREAM
- DRY NATURAL LAKE OR POND
- ⊕ DRY ARTIFICIAL LAKE OR POND
- + OTHER SEDIMENT

◇	□	△	▽	⊠	○	⊕	+	0.0- 8.0
◇	□	△	▽	⊠	○	⊕	+	8.1- 9.0
◇	□	△	▽	⊠	○	⊕	+	9.1- 10.0
◇	□	△	▽	⊠	○	⊕	+	10.1- 11.0
◇	□	△	▽	⊠	○	⊕	+	11.1- 12.0
◇	□	△	▽	⊠	○	⊕	+	12.1- 13.0
◇	□	△	▽	⊠	○	⊕	+	13.1- 15.0
◇	□	△	▽	⊠	○	⊕	+	> 15.0

SCALE 1:250 000

**THORIUM CONCENTRATIONS (ppm) IN SEDIMENTS
OVERLAY
TO THE TRINIDAD NTMS QUADRANGLE, COLORADO**

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