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**Uranium Concentrations in Stream Waters and
Sediments from Selected Sites in the
Eastern Seward Peninsula, Koyukuk, and
Charley River Areas, and Across South-Central Alaska**

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URANIUM CONCENTRATIONS IN STREAM WATERS AND SEDIMENTS
FROM SELECTED SITES IN THE EASTERN SEWARD PENINSULA, KOYUKUK,
AND CHARLEY RIVER AREAS, AND ACROSS SOUTH-CENTRAL ALASKA

by

Robert R. Sharp, Jr., and Dwight E. Hill

ABSTRACT

During the summer of 1975, the Alaska Division of Geological and Geophysical Surveys (DGGs) conducted a 6-week reconnaissance in widespread areas of Alaska as part of the National Uranium Resource Evaluation (NURE) program sponsored by the Department of Energy (DOE). Water, stream sediment, and bedrock samples were taken from the eastern Seward Peninsula, from north of Koyukuk River, from the Charley River area, and from across south-central Alaska, to aid in determining the uranium potential of the state. All of the water samples and splits of most of the sediment samples collected by the DGGs were sent to the Los Alamos Scientific Laboratory (LASL), in Los Alamos, New Mexico, for uranium analysis. This report contains the LASL uranium determinations resulting from fluorometric analysis of the water samples and delayed-neutron counting of the stream sediment samples. Results of total uranium for 611 water and 641 sediment samples, from 691 stream locations, are presented. Overlays showing the numbered sample locations and graphically portraying the concentrations of uranium in water and stream sediment samples, at 1:250 000 scale for use with existing National Topographic Map Series (NTMS) sheets and published geologic maps, are provided as plates. The basic uranium data contained in this report, as well as the data from other laboratories on the uranium, thorium, and potassium oxide content of the stream sediment and bedrock samples collected by the DGGs, were open-filed in an earlier report by the DGGs that is available through the Grand Junction Office of the Department of Energy [(GJBX-28(77))], in Grand Junction, Colorado. The main purposes of this work are to make the uranium data available to the public in the standard computer format used in the NURE Hydrogeochemical and Stream Sediment Reconnaissance (i.e., with a DOE sample number giving the latitude and longitude of each sample location) and to provide uranium concentration overlays at the standard scale of 1:250 000 adopted by the DOE for the NURE program. It also allows a plausible explanation of differences between the uranium values for sediment as determined by acid dissolution/extraction/fluorometry and by delayed-neutron counting that were noted in the earlier report.

I. INTRODUCTION

This report describes work done by the Los Alamos Scientific Laboratory (LASL) and the Alaska Division of Geological and Geophysical Surveys (DGGGS) during the summer of 1975 as part of the National Uranium Resource Evaluation (NURE) program. The DGGGS was contracted by the Energy Research and Development Administration (ERDA), now Department of Energy (DOE), to conduct a geological investigation in areas of Alaska thought to be favorable for uranium occurrence.¹ The LASL is participating in the nationwide Hydrogeochemical and Stream Sediment Reconnaissance (HSSR), which is also part of the DOE-sponsored NURE program. The LASL is responsible for conducting the HSSR in the Rocky Mountain states of New Mexico, Colorado, Wyoming, and Montana and in Alaska.²⁻¹²

The DGGGS personnel, under the direction of Gilbert R. Eakins, conducted reconnaissance sampling in widespread areas of Alaska to aid in determining the uranium potential of the state. Water, stream sediment, and bedrock samples were taken from the Eastern Seward Peninsula, from north of Koyukuk River, from the Charley River area, and from various places across south-central Alaska, and were analyzed for uranium, thorium, and potassium oxide content. All of the DGGGS stream sediment and bedrock samples were analyzed for thorium and potassium oxide, and some for uranium, by the DGGGS laboratory; all were analyzed for uranium by a contractor of the DGGGS. A total of 611 water samples and splits of 641 sediment samples, taken by the DGGGS from 691 stream locations, were analyzed by the LASL for total uranium content using equipment and techniques developed in conjunction with other LASL HSSR responsibilities. The analytical results from all of the laboratories mentioned above, as well as a detailed description of the geology and a statistical evaluation of the uranium favorability of the areas sampled, are contained in a 1977 report by Eakins.¹

The present report contains only the uranium concentrations determined by the LASL from fluorometric analysis of the water samples and delayed-neutron counting (DNC) of the stream sediments supplied by the DGGGS. Although nearly all of the basic data presented herein are contained in the work by Eakins,¹ this report is being released to provide the following:

(1) The uranium concentrations in water and stream sediment samples in the standard format used in the HSSR, where the latitude and longitude of each sample location are provided in the DOE sample number to facilitate computer handling of the data in a standardized manner;

(2) The sample location and graphic uranium concentration information at 1:250 000 scale on individual overlays for use with existing National Topographic Map Series (NTMS) and United States Geological Survey and other published geologic map sheets as was originally planned when choosing this scale as the base for the NURE program; and

(3) A plausible explanation of differences in analytical results reported for the uranium values in stream sediment samples as determined by DNC and by acid dissolution/extraction/fluorometry that were reported in an earlier report.¹

A summary of the field and analytical procedures used in this work is given in Appendix A. The location data and uranium concentrations for all

FIGURE 1
INDEX MAP OF THE EIGHT GENERAL AREAS IN ALASKA FOR WHICH
URANIUM CONCENTRATIONS IN WATER AND SEDIMENT SAMPLES ARE PRESENTED

Los Alamos
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water samples are given in Appendix B and for all sediment samples in Appendix C. The codes to the data listings and the sample types found therein are given in Appendix D.

II. LOCATION OF AREAS FOR WHICH DATA ARE PRESENTED

The general location of the areas from which samples were collected by the DGGS is shown in Fig. 1. There are eight individual areas indicated on this map, each of which is assigned a Roman numeral. The circled Roman numerals (I through VI) indicate areas for which 1:250 000-scale sample location and uranium concentration overlays are provided in the rear pocket of this report. The Roman numerals enclosed in squares (VII and VIII) indicate areas for which no overlays are provided because only a few samples, taken over a broad expanse, were available. The names of the 1:250 000-scale NTMS map sheets from which the samples in each of the eight areas were collected, as well as the alphanumeric, 1:63 360-scale quadrangle designations and the number of locations sampled in each such quadrangle, are also given in Fig. 1. Brief descriptions of the eight areas indicated in Fig. 1 are given in Table I, since the breakdown of areas in this report differs somewhat from that given by Eakins in his 1977 work.¹ The pertinent geologic maps available at 1:250 000 scale are also indicated in Table I. The LASL location numbers for samples for which 1:250 000-scale location maps and uranium concentration overlays are not provided in this report are listed in Table II so that they will not go totally unnoticed. The locational data (latitudes and longitudes) and uranium concentrations for samples from the locations itemized in Table II are available in Appendixes B and C.

III. DESCRIPTION OF DATA AND ANALYTICAL PROCEDURES USED

A summary of the field and analytical procedures used for the work described herein is given in Appendix A. Since the samples reported were collected by DGGS personnel and sent to the LASL for analysis, some of the field measurements normally made by the LASL as standard practice in the NURE HSSR program were not obtained. For instance, much of the field data normally found in similar LASL reports, such as air temperature, water temperature, pH, specific conductance, equivalent uranium as determined with a scintillometer, and sample site description, are not available with the uranium concentrations in the water samples as presented in Appendix B, or with such data for the sediments as presented in Appendix C. The codes to the data that are provided in Appendixes B and C (i.e., state location, latitude and longitude, DOE laboratory, sample type, LASL sample number, and uranium concentration) are given in Appendix D. Note that the LASL sample location numbers set forth in Appendixes B and C and used on Plates I through VI do not match the sample numbers assigned by Eakins in his report, GJBX-28(77).¹ The overlays provided herewith and the maps accompanying GJBX-28(77) will have to be compared if one wishes to cross-reference sample location numbers between the two reports. Also note that in Appendixes B and C the samples are numerically ordered on their LASL sample numbers from the top of each page to the bottom and then from left to right. Both a water and a sediment sample were generally taken from each location when they were available. When either a water or a sediment is missing from a location that could have provided both, the one that is missing is simply left out of the appropriate listing. Also, each of the

TABLE I

DESCRIPTION OF THE EIGHT GENERAL AREAS SAMPLED IN ALASKA FOR WHICH
URANIUM CONCENTRATIONS IN WATER AND SEDIMENT SAMPLES ARE PRESENTED

Area Number	NTMS 1:250 000 Map Sheets	Areas Sampled Within the NTMS Map Sheets Named	Number of Samples		Geologic Maps at 1:250 000	Overlays Provided
			Water	Sediment		
I	Selawik and Candle	Selawik Hills, Clem Mountain, Hunter Creek and Granite Mountain	197*	196	Refs. 13, 14, and 15	Yes
II	Shungnak and Hughes	Purcell Mountains and Zane Hills	88	91	Refs. 16 and 17	Yes
III	Bendeleben and Solomon	Darby and Kwikhtalik Mountains and Bryan Creek	127*	148	Ref. 18	Yes
IV	Talkeetna Mtns. and Gulkana	Coal Creek, Susitna River, Goose Creek, Big Bones Ridge, Tyone, Cardioceras, and Caribou Creeks and Slide Mountain	85	93		Yes
V	Valdez and McCarthy	Mt. DuRulle, Bernard Creek, E. Fork Chetaslina, Chesnina, and Kotsina River, Hubbard Creek, Sheep Mtns., Alice Peak, Nerelna Creek, Granite Peak, and Skyscraper Peak	53	58	Ref. 19	Yes
VI	McCarthy	Fireweed and Porphyry Mountain and Young Creek	36	47	Ref. 19	Yes
VII	Eagle and Charley River	Coal, Sam, Michigan, American Bryant, and Bluff Creeks and Nation and Tatonduk Rivers	15	5	Refs. 20, 21, and 22	No
VIII	Mt. Hayes	Triangle Peak	0	3		No

* This does not include the 7 samples from Area I or the 3 samples from Area III which are indicated in Table III as having uranium concentrations too low to detect.

TABLE II

LASL LOCATION NUMBERS OF SAMPLES FOR WHICH 1:250 000-SCALE
LOCATION MAPS AND URANIUM CONCENTRATION OVERLAYS ARE NOT PROVIDED

Area Number of Fig. 1	LASL Sample Location Number	Type of Sample Taken		1:250 000 Scale NTMS Sheet and Alphanumeric Quad Designator
		Water	Sediment	
VII	400320	X	X	Charley River, B-5
VII	400321	X	X	Charley River, B-4
VII	400322	X	X	Charley River, A-2
VII	400324	X		Charley River, A-2
VII	400325	X	X	Charley River, A-2
VII	400326	X	X	Charley River, A-2
VII	400327	X		Charley River, A-1
VII	400472	X		Eagle, D-2
VII	400473	X		Eagle, D-2
VII	400474	X		Eagle, D-1
VII	400475	X		Eagle, D-1
VII	400476	X		Eagle, C-1
VII	400477	X		Eagle, C-1
VII	400478	X		Eagle, C-1
VII	400479	X		Eagle, C-1
VIII	400480		X	Mt. Hayes, A-4
VIII	400481		X	Mt. Hayes, A-4
VIII	400482		X	Mt. Hayes, A-4

sample location numbers as used on the LASL sample location overlays (Plate I-VI) have 400 000 subtracted from the full numbers used in the data listing of Appendixes B and C.

The water samples were collected in prewashed, 25-ml polyethylene bottles, supplied by the LASL, and then acidified to a pH of about 1 with reagent-grade nitric acid. Acidification was done at the request of the LASL and insures maximum retention of uranium in solution while inhibiting the growth of algae in the water sample during storage. All waters were analyzed at the LASL by a fluorometric method similar to that described by Hues et al.²³ Ten water samples collected and analyzed (Table III) are not included in the data listings of Appendix B because the analytical laboratory reported the uranium concentrations for these samples simply as "near zero." This resulted when both of the two aliquots of each of these 10 samples exhibited uranium concentrations that were too low to detect. The detection limit of the specific

TABLE III

LASL LOCATION NUMBERS OF WATER SAMPLES FOR WHICH URANIUM CONCENTRATIONS IN BOTH OF TWO ALIQUOTS WERE TOO LOW TO DETECT

LASL Location Number		Plate on Which Water Sample Occurs	LASL Location Number		Plate on Which Water Sample Occurs
(1)	400005	I-A	(6)	400064	I-A
(2)	400029	I-A	(7)	400186	I-A
(3)	400054	I-A	(8)	400423	III-A
(4)	400055	I-A	(9)	400458	III-A
(5)	400059	I-A	(10)	400459	III-A

Note that these water samples are not included in the listings of Appendix B, but that their locations are as given for the sediment with the same location number in Appendix C and as shown on the location overlays of Plates I or III. They are, however, appropriately included as having $>0.00 - 0.05$ ppb uranium on the graphic concentration plots of stream waters on Plates I-A or III-A.

fluorometric procedure used at the time these samples were analyzed, as well as the method of handling those cases where only one of the two aliquots that were run on each sample fell below the detectable limit, are set forth in Appendix A.

Sediment samples were collected from beneath the water of streams where possible. In some of the tundra- or muskeg-covered areas, sediment samples consisted of considerable carbonaceous material. These sediments were dried at $\leq 100^{\circ}\text{C}$ and sieved to -80 mesh (note that this is not the -100 mesh size fraction adopted as standard by the LASL, but tests have shown it to be generally quite adequate in all but dry desert environments) and splits were furnished to the LASL. The sediment samples were analyzed for total uranium content by DNC. The distribution of uranium concentrations in stream water and sediment samples from each of the six areas for which overlays are provided are given in Figs. 2-7.

IV. CONCLUDING REMARKS

In his 1977 report, Eakins notes that the LASL results for the uranium content of stream sediments are consistently higher than the uranium results reported by another laboratory for the same sediment samples. This quite likely occurred because the other laboratory used a combination of acid dissolution, chemical extraction, and fluorometry (see Appendix D of Ref. 1) to determine the uranium content of the sediments, while the LASL used DNC. Differences can be expected between the results of the two methods because the DNC method definitely produces a value for the total uranium content while the other method quite likely does not. In the case at hand, it is not perfectly

a. Frequency histogram for stream waters

b. Frequency histogram for wet stream sediments
(sediments from 7 dry streams not included)

Fig. 2. Distribution of uranium concentrations in water and sediment samples from Area I, southeast of Kotzebue Sound, Alaska.

a. Frequency histogram for stream waters

b. Frequency histogram for wet stream sediments
(sediments from 5 dry streams not included)

Fig. 3. Distribution of uranium concentrations in water and sediment samples from Area II, north and northwest of Koyukuk River, Alaska.

a. Frequency histogram for stream waters

b. Frequency histogram for wet stream sediments
(sediments from 21 dry streams not included)

Fig. 4. Distribution of uranium concentrations in water and sediment samples from Area III, northeast of Norton Sound, Alaska.

a. Frequency histogram for stream waters

b. Frequency histogram for wet stream sediments
(sediments from 14 dry streams not included)

Fig. 5. Distribution of uranium concentrations in water and sediment samples from Area IV, upper Susitna River and southeast Talkeetna Mountains, Alaska.

a. Frequency histogram for stream waters

b. Frequency histogram for wet stream sediments
(sediments from 7 dry streams not included)

Fig. 6. Distribution of uranium concentrations in water and sediment samples from Area V, southwest of the Wrangell Mountains, Alaska.

a. Frequency histogram for stream waters

b. Frequency histogram for wet stream sediments
(sediments from 6 dry streams not included)

Fig. 7. Distribution of uranium concentrations in water and sediment samples from Area VI, Nizina River drainage, Alaska.

clear whether the sediment dissolution used in preparation for the fluorometric determination was even believed to be total, though the implication is that this was not the case. If not, then only part of the total uranium or the more or less "readily soluble" uranium was measured, and these two values (total versus readily soluble uranium) can differ significantly depending upon the type of solvent used and the type and content of the various minerals contained in the sediment samples. This important and even useful difference should be recognized in evaluating uranium data of either type obtained from sediments. However, even if total dissolution of the sediment was accomplished, the presence of manganese and iron in sufficient quantities (greater than 1000 ppm of manganese) can cause quenching of uranium-induced fluorescence, thereby producing a negative bias in the fluorometric data.²⁴ A report by Sharp from the Cape Krusenstern area, Alaska (across Kotzebue Sound from the Selawik area), showed that 15% of the sediment samples analyzed contained manganese concentrations in excess of 1000 ppm.²⁵ While interference from manganese and iron is not normally a problem in analyzing natural waters for uranium,²⁶ this is not the case with leachates or digestates of sediment.

Most of the areas from which the samples reported herein were taken are underlain by continuous to discontinuous permafrost.²⁷ Until about two decades ago, it was assumed that permafrost formed an impermeable barrier to water movement, and that it greatly inhibited chemical weathering and leaching.²⁸ However, by 1968, Russian investigators had shown that metal ions can and do migrate through permafrost, and Pitul'ko had described the features of geochemical searches for rare-metal deposits in permafrost areas.²⁹ Later work further showed the effectiveness of water³⁰ and sediment³¹ sampling in areas of permafrost, for both base metal^{29,30} and uranium exploration³¹ and for reconnaissance surveys.³² The mechanisms by which metal ions move upward through permafrost and disperse into stream and lake waters are dealt with in nearly all of the early works on geochemical surveying in permafrost terrain,^{28,29,31} but one of the most detailed explanations is provided by Jonasson and Allen in their 1973 work.³³

Since most of the data presented herein have been concisely summarized by Eakins, who has also provided a thorough account of the geology of each area and the pertinent geological relations involved, no further evaluation is included in this report. It does, however, seem worthy of note in conclusion that the setting of pertinent anomaly thresholds for geochemical water or stream sediment samples for any area is difficult at best.^{34,35} Because the samples reported herein were taken from relatively restricted areas that were originally chosen as being in some way more favorable than average for uranium mineralization, the possibility of picking too high a threshold value on the basis of the data presented does exist. Consequently, a more detailed evaluation of these uranium data than has yet been published may well be worthwhile--particularly if it is used in combination with all other available information and techniques applicable to uranium exploration.^{12,28,34}

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APPENDIX A

SUMMARY OF LASL HSSR FIELD AND ANALYTICAL PROCEDURES USED IN OBTAINING DATA FOR THIS REPORT

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SUMMARY OF LASL HSSR FIELD AND ANALYTICAL PROCEDURES USED IN OBTAINING DATA FOR THIS REPORT

I. FIELD PROCEDURES

Water Sampling

Water samples were taken directly from the source wherever possible and placed into prewashed and sealed 25-ml polyethylene vials. These were then acidified to a pH of about 1 with a reagent-grade HNO_3 . Stream waters were taken from fast-flowing current away from the bank.

Sediment Sampling (Wet or Dry)

Enough fine-grained, organic-rich, water-transported sediment to yield a composite sample of ~25 g after processing (as indicated below) was taken from beneath the water level (where water existed) at closely adjacent spots at each location. After drying at $\leq 100^\circ\text{C}$, each sample was sieved through stainless steel sieves to -80 mesh. The -80 mesh fraction was put into a prewashed, 25-ml polyethylene vial, appropriately labeled, and sealed for shipment to the LASL.

Sample Location Verification

The maps used in the field were original 1:63 360-scale topographic quadrangles, available through the USGS. As each location was sampled a sample location number was inked alongside the precisely marked point representing the sample site on the field map. The latitude and longitude of each location was then computed at the LASL. Every location was later checked again (and corrected if necessary) by overlaying computer-produced location plots at 1:63 360 scale on the field maps used. The latitudes and/or longitudes were corrected if the overlay locations were displaced by more than 300 m from the locations marked on the field maps. In the case at hand, all sample locations were chosen by DCGS personnel. The computer program for the 1:250 000-scale Universal Transverse Mercator map projection finally used in making the plates is described by Cheadle.³⁶

II. ANALYTICAL PROCEDURES

Water Samples Analyzed for Uranium by Fluorometry

A NaF (98%)-LiF (2%) flux pellet was prepared in a controlled laboratory environment and placed on a platinum dish. The 25-ml water vial was vigorously shaken and a 0.20-ml aliquot of water was withdrawn and dropped onto a flux pellet, then evaporated under a heat lamp. This was done for duplicate aliquots of each sample. The sample flux was then heated until fused. After it cooled, it was excited with ultra-violet radiation in the fluorometer, and the measured fluorescence was read, recorded, and put through a computer routine using standards and blanks run at the same time to obtain the uranium concentration. The average uranium concentration of the sample, as given in the appropriate data listings, is then the average obtained from the duplicate aliquots. The lower limit of detection for each aliquot by the procedure used in the present report was 0.10 ppb. If a single sample of the duplicate aliquot was below the detectable limit, it was recorded as "near zero" and

averaged in as 0.00 ppb. Therefore, whenever the uranium concentration in a water sample run by fluorometry is given as some value less than 0.10 ppb, one of the two aliquots had a uranium concentration that was too low to detect. If the uranium value is given only in Table III, however, then both aliquots were below the detectable limit. If both samples of the duplicate aliquot were below the detectable limit, though the value is not in the data listing, it is arbitrarily shown on the concentration plots of the plates as having a uranium content in the range of $>0.00 - 0.05$ ppb. The analytical precision is $\sim 30\%$ at the lower detection limit, $\sim 20\%$ at one order of magnitude above this, and $\sim 10\%$ at one or more orders of magnitude higher still. A more detailed account of the general fluorometric method used has been provided by Hues et al,²³ but modifications were incorporated in the present case to give the lower detection limit of 0.10 ppb uranium quoted above.

Uranium Analysis of Sediment Samples by Delayed-Neutron Counting (DNC)

All sediment samples were analyzed for total uranium by DNC. A split of each sample (dried and sieved as described) was transferred to a clean 4-ml reactor rabbit, weighed (less the tare), and recorded along with the appropriate location number. The readied rabbits were loaded into a 50-sample transfer clip. The reactor pneumatic transfer system and background radiation levels were checked, and the system was calibrated using four standards. The transfer clip was installed and the count control was set (typically, a 20-s irradiation, a 10-s delay, and a 20-s count were used). The samples were cycled through the system and the uranium concentration was automatically measured, computed in ppm, and entered into the data base. The lower limit of detection of this method is 0.5 ppb (not ppm) uranium and is so low that it has never been reached with a natural sediment sample. The delayed-neutron detectors especially designed and built by the LASL and used for these analyses are described by Balestrini and others.³⁷

APPENDIX B

LISTINGS OF FIELD DATA AND URANIUM CONCENTRATIONS FOR WATER SAMPLES

(See Appendix D for codes to listings)

APPENDIX B. Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER					DOE SAMPLE NUMBER					DOE SAMPLE NUMBER					DOE SAMPLE NUMBER								
STATE	LATITUDE	LONGITUDE	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	WATER SAMPLES ANALYZED BY FLUOROMETRY	UNITS IN ppb	STATE	LATITUDE	LONGITUDE	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	WATER SAMPLES ANALYZED BY FLUOROMETRY	UNITS IN ppb	STATE	LATITUDE	LONGITUDE	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	WATER SAMPLES ANALYZED BY FLUOROMETRY	UNITS IN ppb
02-66	3.338	161.557	-2-2	U-400001	0.20	02-66	1.172	161.283	-2-2	0-400060	0.15	02-66	1.172	161.140	-2-2	0-400116	1.35	02-66	1.172	161.140	-2-2	0-400116	1.35
02-66	3.338	161.554	-2-2	U-400002	0.35	02-66	1.175	161.280	-2-2	U-400061	0.05	02-66	1.175	161.136	-2-2	U-400117	1.10	02-66	1.175	161.136	-2-2	U-400117	1.10
02-66	3.177	161.530	-2-2	U-400003	0.55	02-66	1.250	161.358	-2-2	U-400062	0.60	02-66	1.250	161.042	-2-2	U-400118	0.85	02-66	1.250	161.042	-2-2	U-400118	0.85
02-66	2.943	161.500	-2-2	U-400004	0.20	02-66	1.184	161.350	-2-2	U-400063	0.15	02-66	1.184	161.161	-2-2	U-400119	0.45	02-66	1.184	161.161	-2-2	U-400119	0.45
02-66	3.605	161.452	-2-2	U-400005	0.40	02-66	3.027	157.609	-2-2	U-400064	1.50	02-66	3.027	157.094	-2-2	U-400120	1.55	02-66	3.027	157.094	-2-2	U-400120	1.55
02-66	3.633	161.427	-2-2	U-400006	0.50	02-66	3.411	157.605	-2-2	U-400065	0.75	02-66	3.411	157.094	-2-2	U-400121	1.80	02-66	3.411	157.094	-2-2	U-400121	1.80
02-66	3.610	161.352	-2-2	U-400007	0.50	02-66	2.846	157.611	-2-2	U-400066	1.00	02-66	2.846	157.077	-2-2	U-400122	1.80	02-66	2.846	157.077	-2-2	U-400122	1.80
02-66	3.438	161.366	-2-2	U-400008	1.20	02-66	2.875	157.606	-2-2	U-400067	0.75	02-66	2.875	157.033	-2-2	U-400123	1.05	02-66	2.875	157.033	-2-2	U-400123	1.05
02-66	3.438	161.366	-2-2	U-400009	0.45	02-66	2.916	157.526	-2-2	U-400068	0.55	02-66	2.916	157.033	-2-2	U-400124	2.60	02-66	2.916	157.033	-2-2	U-400124	2.60
02-66	3.450	161.305	-2-2	U-400010	0.45	02-66	2.943	157.536	-2-2	U-400069	0.20	02-66	2.943	157.033	-2-2	U-400125	0.75	02-66	2.943	157.033	-2-2	U-400125	0.75
02-66	3.172	161.215	-2-2	U-400011	0.25	02-66	2.563	157.557	-2-2	U-400070	0.70	02-66	2.563	157.033	-2-2	U-400126	0.65	02-66	2.563	157.033	-2-2	U-400126	0.65
02-66	3.172	161.215	-2-2	U-400012	0.25	02-66	3.125	157.361	-2-2	U-400071	1.80	02-66	3.125	157.033	-2-2	U-400127	0.55	02-66	3.125	157.033	-2-2	U-400127	0.55
02-66	2.413	161.416	-2-2	U-400013	0.65	02-66	2.411	157.390	-2-2	U-400072	1.70	02-66	2.411	157.033	-2-2	U-400128	0.55	02-66	2.411	157.033	-2-2	U-400128	0.55
02-66	2.897	161.413	-2-2	U-400014	0.15	02-66	2.943	157.390	-2-2	U-400073	1.80	02-66	2.943	157.033	-2-2	U-400129	0.75	02-66	2.943	157.033	-2-2	U-400129	0.75
02-66	3.297	159.713	-2-2	U-400015	0.40	02-66	2.943	157.390	-2-2	U-400074	1.95	02-66	2.943	157.033	-2-2	U-400130	0.75	02-66	2.943	157.033	-2-2	U-400130	0.75
02-66	3.327	159.712	-2-2	U-400016	0.10	02-66	2.943	157.390	-2-2	U-400075	1.30	02-66	2.943	157.033	-2-2	U-400131	0.60	02-66	2.943	157.033	-2-2	U-400131	0.60
02-66	3.327	159.712	-2-2	U-400017	0.15	02-66	2.943	157.390	-2-2	U-400076	1.45	02-66	2.943	157.033	-2-2	U-400132	0.75	02-66	2.943	157.033	-2-2	U-400132	0.75
02-66	3.327	159.712	-2-2	U-400018	0.45	02-66	2.943	157.390	-2-2	U-400077	0.30	02-66	2.943	157.033	-2-2	U-400133	0.70	02-66	2.943	157.033	-2-2	U-400133	0.70
02-66	3.327	159.712	-2-2	U-400019	0.35	02-66	2.943	157.390	-2-2	U-400078	0.65	02-66	2.943	157.033	-2-2	U-400134	0.50	02-66	2.943	157.033	-2-2	U-400134	0.50
02-66	3.327	159.712	-2-2	U-400020	0.15	02-66	2.943	157.390	-2-2	U-400079	0.70	02-66	2.943	157.033	-2-2	U-400135	0.35	02-66	2.943	157.033	-2-2	U-400135	0.35
02-66	3.327	159.712	-2-2	U-400021	0.15	02-66	2.943	157.390	-2-2	U-400080	0.75	02-66	2.943	157.033	-2-2	U-400136	0.40	02-66	2.943	157.033	-2-2	U-400136	0.40
02-66	3.327	159.712	-2-2	U-400022	0.50	02-66	2.943	157.390	-2-2	U-400081	0.20	02-66	2.943	157.033	-2-2	U-400137	0.30	02-66	2.943	157.033	-2-2	U-400137	0.30
02-66	3.327	159.712	-2-2	U-400023	0.35	02-66	2.943	157.390	-2-2	U-400082	1.30	02-66	2.943	157.033	-2-2	U-400138	0.40	02-66	2.943	157.033	-2-2	U-400138	0.40
02-66	3.327	159.712	-2-2	U-400024	0.60	02-66	2.943	157.390	-2-2	U-400083	0.35	02-66	2.943	157.033	-2-2	U-400139	0.30	02-66	2.943	157.033	-2-2	U-400139	0.30
02-66	3.327	159.712	-2-2	U-400025	0.55	02-66	2.943	157.390	-2-2	U-400084	1.75	02-66	2.943	157.033	-2-2	U-400140	0.45	02-66	2.943	157.033	-2-2	U-400140	0.45
02-66	3.327	159.712	-2-2	U-400026	0.70	02-66	2.943	157.390	-2-2	U-400085	1.90	02-66	2.943	157.033	-2-2	U-400141	0.45	02-66	2.943	157.033	-2-2	U-400141	0.45
02-66	3.327	159.712	-2-2	U-400027	0.40	02-66	2.943	157.390	-2-2	U-400086	2.40	02-66	2.943	157.033	-2-2	U-400142	0.65	02-66	2.943	157.033	-2-2	U-400142	0.65
02-66	3.327	159.712	-2-2	U-400028	0.40	02-66	2.943	157.390	-2-2	U-400087	2.40	02-66	2.943	157.033	-2-2	U-400143	1.00	02-66	2.943	157.033	-2-2	U-400143	1.00
02-66	3.327	159.712	-2-2	U-400029	0.35	02-66	2.943	157.390	-2-2	U-400088	0.45	02-66	2.943	157.033	-2-2	U-400144	0.65	02-66	2.943	157.033	-2-2	U-400144	0.65
02-66	3.327	159.712	-2-2	U-400030	0.35	02-66	2.943	157.390	-2-2	U-400089	0.25	02-66	2.943	157.033	-2-2	U-400145	0.65	02-66	2.943	157.033	-2-2	U-400145	0.65
02-66	3.327	159.712	-2-2	U-400031	0.70	02-66	2.943	157.390	-2-2	U-400090	0.25	02-66	2.943	157.033	-2-2	U-400146	1.65	02-66	2.943	157.033	-2-2	U-400146	1.65
02-66	3.327	159.712	-2-2	U-400032	0.10	02-66	2.943	157.390	-2-2	U-400091	0.65	02-66	2.943	157.033	-2-2	U-400147	1.65	02-66	2.943	157.033	-2-2	U-400147	1.65
02-66	3.327	159.712	-2-2	U-400033	0.15	02-66	2.943	157.390	-2-2	U-400092	1.80	02-66	2.943	157.033	-2-2	U-400148	0.70	02-66	2.943	157.033	-2-2	U-400148	0.70
02-66	3.327	159.712	-2-2	U-400034	0.35	02-66	2.943	157.390	-2-2	U-400093	0.20	02-66	2.943	157.033	-2-2	U-400149	0.45	02-66	2.943	157.033	-2-2	U-400149	0.45
02-66	3.327	159.712	-2-2	U-400035	0.50	02-66	2.943	157.390	-2-2	U-400094	0.95	02-66	2.943	157.033	-2-2	U-400150	0.70	02-66	2.943	157.033	-2-2	U-400150	0.70
02-66	3.327	159.712	-2-2	U-400036	0.50	02-66	2.943	157.390	-2-2	U-400095	0.55	02-66	2.943	157.033	-2-2	U-400151	0.95	02-66	2.943	157.033	-2-2	U-400151	0.95
02-66	3.327	159.712	-2-2	U-400037	0.20	02-66	2.943	157.390	-2-2	U-400096	1.45	02-66	2.943	157.033	-2-2	U-400152	3.25	02-66	2.943	157.033	-2-2	U-400152	3.25
02-66	3.327	159.712	-2-2	U-400038	0.30	02-66	2.943	157.390	-2-2	U-400097	0.50	02-66	2.943	157.033	-2-2	U-400153	1.95	02-66	2.943	157.033	-2-2	U-400153	1.95
02-66	3.327	159.712	-2-2	U-400039	1.25	02-66	2.943	157.390	-2-2	U-400098	1.40	02-66	2.943	157.033	-2-2	U-400154	2.95	02-66	2.943	157.033	-2-2	U-400154	2.95
02-66	3.327	159.712	-2-2	U-400040	1.55	02-66	2.943	157.390	-2-2	U-400099	0.85	02-66	2.943	157.033	-2-2	U-400155	1.70	02-66	2.943	157.033	-2-2	U-400155	1.70
02-66	3.327	159.712	-2-2	U-400041	1.75	02-66	2.943	157.390	-2-2	U-400100	0.90	02-66	2.943	157.033	-2-2	U-400156	2.70	02-66	2.943	157.033	-2-2	U-400156	2.70
02-66	3.327	159.712	-2-2	U-400042	1.25	02-66	2.943	157.390	-2-2	U-400101	0.85	02-66	2.943	157.033	-2-2	U-400157	3.95	02-66	2.943	157.033	-2-2	U-400157	3.95
02-66	3.327	159.712	-2-2	U-400043	0.15	02-66	2.943	157.390	-2-2	U-400102	0.85	02-66	2.943	157.033	-2-2	U-400158	2.40	02-66	2.943	157.033	-2-2	U-400158	2.40
02-66	3.327	159.712	-2-2	U-400044	0.80	02-66	2.943	157.390	-2-2	U-400103	0.45	02-66	2.943	157.033	-2-2	U-400159	1.90	02-66	2.943	157.033	-2-2	U-400159	

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						U CONCENTRATION ANALYZED BY FLUOROMETRY	DOE SAMPLE NUMBER						U CONCENTRATION ANALYZED BY FLUOROMETRY	DOE SAMPLE NUMBER						U CONCENTRATION ANALYZED BY FLUOROMETRY
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	
						UNITS IN ppb													UNITS IN ppb	
02-65.9472-161.3144-2-2/	U-400176	0.25	02-65.5140-161.1000-2-2/	U-400231	0.50	02-65.4250-161.3211-2-2/	U-400284	1.15												
02-65.9455-161.2944-2-2/	U-400177	0.90	02-65.5133-161.1004-2-2/	U-400232	0.35	02-65.4133-161.2944-2-2/	U-400285	1.05												
02-65.9441-161.4873-2-2/	U-400178	0.25	02-65.5146-161.1021-2-2/	U-400233	0.55	02-65.4244-161.1305-2-2/	U-400286	0.60												
02-65.9633-161.4833-2-2/	U-400180	0.40	02-65.5172-161.0910-2-2/	U-400235	1.00	02-65.4250-161.1055-2-2/	U-400287	0.55												
02-65.9052-161.3314-2-2/	U-400181	0.35	02-65.5166-161.0950-2-2/	U-400236	0.25	02-65.4104-161.1500-2-2/	U-400288	0.35												
02-65.9048-161.3314-2-2/	U-400182	1.10	02-65.5144-161.0921-2-2/	U-400237	1.05	02-65.4125-161.1861-2-2/	U-400289	0.30												
02-65.9048-161.2991-2-2/	U-400183	1.00	02-65.5155-161.0711-2-2/	U-400238	0.80	02-65.4177-161.1841-2-2/	U-400290	1.00												
02-65.9455-161.4911-2-2/	U-400184	0.35	02-65.5113-161.0800-2-2/	U-400239	0.35	02-65.3454-161.1541-2-2/	U-400291	0.60												
02-65.9416-161.4913-2-2/	U-400185	1.25	02-65.4114-161.0904-2-2/	U-400240	0.40	02-65.3443-161.1444-2-2/	U-400292	0.90												
02-65.9430-161.4424-2-2/	U-400187	0.15	02-65.4115-161.0801-2-2/	U-400241	0.40	02-65.4016-161.1255-2-2/	U-400293	0.65												
02-65.9466-161.4013-2-2/	U-400188	0.30	02-65.4111-161.0833-2-2/	U-400242	0.80	02-65.4041-161.1000-2-2/	U-400294	0.35												
02-65.9458-161.4004-2-2/	U-400189	0.05	02-65.4446-161.0850-2-2/	U-400243	0.50	02-65.3452-161.0333-2-2/	U-400295	0.60												
02-65.9486-161.2821-2-2/	U-400190	0.40	02-65.4445-161.0912-2-2/	U-400244	0.55	02-65.3447-161.0300-2-2/	U-400296	0.30												
02-65.9472-161.2803-2-2/	U-400191	0.45	02-65.4111-161.0803-2-2/	U-400245	1.15	02-65.3455-161.0638-2-2/	U-400297	0.90												
02-65.9383-161.2904-2-2/	U-400193	0.75	02-65.4166-161.0855-2-2/	U-400247	0.80	02-65.3011-161.0755-2-2/	U-400298	0.40												
02-65.9263-161.2910-2-2/	U-400194	0.60	02-65.4175-161.0821-2-2/	U-400248	0.90	02-65.3414-161.0300-2-2/	U-400299	0.70												
02-65.9258-161.2861-2-2/	U-400195	1.30	02-65.4100-161.0944-2-2/	U-400249	0.85	02-65.3422-161.0211-2-2/	U-400300	0.40												
02-65.7250-161.5912-2-2/	U-400196	0.55	02-65.4177-161.0941-2-2/	U-400250	1.30	02-65.3075-161.0301-2-2/	U-400301	1.55												
02-65.7222-161.5888-2-2/	U-400197	0.85	02-65.4175-161.0941-2-2/	U-400251	0.25	02-65.3063-161.0722-2-2/	U-400302	1.20												
02-65.7216-161.5803-2-2/	U-400198	0.75	02-65.4172-161.0911-2-2/	U-400252	0.45	02-65.3163-161.0230-2-2/	U-400303	0.35												
02-65.7248-161.5833-2-2/	U-400199	1.05	02-65.4443-161.0938-2-2/	U-400253	1.25	02-65.3161-161.0200-2-2/	U-400304	0.55												
02-65.7047-161.6486-2-2/	U-400200	0.30	02-65.4443-161.0938-2-2/	U-400254	1.30	02-65.3066-161.0251-2-2/	U-400305	0.50												
02-65.6416-161.7091-2-2/	U-400201	0.60	02-65.4447-161.0980-2-2/	U-400255	0.45	02-65.3075-161.0250-2-2/	U-400306	0.65												
02-65.6197-161.6319-2-2/	U-400202	1.40	02-65.4443-161.0952-2-2/	U-400256	0.30	02-65.3075-161.0133-2-2/	U-400307	0.15												
02-65.6700-161.5930-2-2/	U-400203	0.55	02-65.4441-161.0933-2-2/	U-400257	1.35	02-65.3063-161.0433-2-2/	U-400308	0.55												
02-65.6611-161.6188-2-2/	U-400204	1.95	02-65.4447-161.0900-2-2/	U-400258	0.40	02-65.3454-161.0152-2-2/	U-400309	0.35												
02-65.6591-161.5472-2-2/	U-400205	1.25	02-65.4440-161.0911-2-2/	U-400259	0.50	02-65.3440-161.0625-2-2/	U-400310	0.50												
02-65.6586-161.5410-2-2/	U-400206	1.30	02-65.4440-161.0950-2-2/	U-400260	0.75	02-65.3445-161.0910-2-2/	U-400311	0.35												
02-65.6466-161.6504-2-2/	U-400207	0.30	02-65.4442-161.0983-2-2/	U-400261	0.45	02-65.3448-161.0430-2-2/	U-400312	0.95												
02-65.6472-161.6410-2-2/	U-400208	1.20	02-65.4446-161.0912-2-2/	U-400262	0.50	02-65.3440-161.0980-2-2/	U-400313	0.85												
02-65.6322-161.6305-2-2/	U-400209	1.15	02-65.4443-161.0955-2-2/	U-400263	1.00	02-65.3440-161.0521-2-2/	U-400314	0.60												
02-65.6333-161.6222-2-2/	U-400210	0.50	02-65.4450-161.0933-2-2/	U-400264	0.95	02-65.3441-161.0271-2-2/	U-400315	0.35												
02-65.7166-161.4033-2-2/	U-400211	0.45	02-65.4449-161.0980-2-2/	U-400265	1.85	02-65.3440-161.0910-2-2/	U-400316	0.90												
02-65.7077-161.2704-2-2/	U-400212	0.50	02-65.4443-161.0988-2-2/	U-400266	1.00	02-65.3447-161.0625-2-2/	U-400317	0.65												
02-65.7033-161.4055-2-2/	U-400213	0.85	02-65.4455-161.0943-2-2/	U-400267	0.70	02-65.3277-161.0250-2-2/	U-400318	0.75												
02-65.7027-161.4022-2-2/	U-400214	0.65	02-65.4447-161.0983-2-2/	U-400268	0.45	02-65.3140-161.0722-2-2/	U-400319	0.75												
02-65.7016-161.3064-2-2/	U-400215	0.80	02-65.4441-161.0750-2-2/	U-400269	1.85	02-65.3140-161.0644-2-2/	U-400320	0.20												
02-65.7000-161.3083-2-2/	U-400216	0.60	02-65.4448-161.0741-2-2/	U-400270	0.70	02-65.3116-161.0700-2-2/	U-400321	0.65												
02-65.7016-161.2771-2-2/	U-400217	2.15	02-65.4444-161.0677-2-2/	U-400271	1.05	02-65.2000-161.0950-2-2/	U-400322	0.55												
02-65.6444-161.3474-2-2/	U-400218	1.80	02-65.4446-161.0630-2-2/	U-400272	0.75	02-65.0416-161.0911-2-2/	U-400324	0.45												
02-65.6466-161.4271-2-2/	U-400220	0.95	02-65.4448-161.0541-2-2/	U-400273	1.70	02-65.0775-161.0925-2-2/	U-400325	0.10												
02-65.6477-161.4286-2-2/	U-400221	0.50	02-65.4445-161.0550-2-2/	U-400274	1.40	02-65.0411-161.0923-2-2/	U-400326	0.20												
02-65.6419-161.4280-2-2/	U-400222	1.10	02-65.4447-161.0441-2-2/	U-400275	0.65	02-65.0216-161.0941-2-2/	U-400327	0.20												
02-65.6750-161.3972-2-2/	U-400223	1.65	02-65.4445-161.0400-2-2/	U-400276	0.95	02-64.4163-162.3861-2-2/	U-400330	1.25												
02-65.6746-161.3944-2-2/	U-400224	0.45	02-65.4448-161.0350-2-2/	U-400277	0.60	02-64.9744-162.3422-2-2/	U-400332	0.80												
02-65.6750-161.3444-2-2/	U-400225	1.50	02-65.4444-161.0320-2-2/	U-400278	0.50	02-64.4148-162.3410-2-2/	U-400333	1.05												
02-65.6740-161.3444-2-2/	U-400226	1.45	02-65.4441-161.0300-2-2/	U-400279	0.10	02-64.9701-162.1930-2-2/	U-400338	0.60												
02-65.6694-161.3472-2-2/	U-400227	1.00	02-65.4448-161.0305-2-2/	U-400280	0.40	02-64.9745-162.1880-2-2/	U-400339	0.40												
02-65.5958-161.1410-2-2/	U-400228	0.60	02-65.4442-161.0344-2-2/	U-400281	1.30	02-64.9757-162.1833-2-2/	U-400340	1.35												
02-65.5833-161.1458-2-2/	U-400229	0.50	02-65.4440-161.0644-2-2/	U-400282	1.65	02-64.9722-162.1805-2-2/	U-400341	1.05												
02-65.5845-161.1410-2-2/	U-400230	0.50	02-65.4448-161.0555-2-2/	U-400283	1.35	02-64.9642-162.1972-2-2/	U-400342	1.05												

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER				DOE SAMPLE NUMBER				DOE SAMPLE NUMBER				DOE SAMPLE NUMBER			
STATE	LATITUDE	LONGITUDE	DOE LAB	REPLICATE	WATER SAMPLES ANALYZED BY FLUOROMETRY	UNITS IN ppb	LAST SAMPLE LOCATION NUMBER	STATE	LATITUDE	LONGITUDE	DOE LAB	REPLICATE	WATER SAMPLES ANALYZED BY FLUOROMETRY	UNITS IN ppb	LAST SAMPLE LOCATION NUMBER
02-64	9565-162.1980-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9565-162.2555-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9477-162.3861-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9477-162.3833-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9508-162.1888-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9508-162.1855-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9347-162.2910-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9330-162.2660-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9327-162.2638-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9319-162.2333-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9315-162.2055-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9311-162.2000-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9111-162.3597-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9025-162.3355-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9055-162.3165-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	9041-162.2835-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8950-162.2555-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8938-162.2777-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8910-162.2855-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8777-162.3458-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8819-162.3083-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8813-162.2500-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8813-162.2472-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8745-162.3800-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8688-162.3783-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8758-162.2488-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8591-162.2583-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8555-162.2583-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8475-162.3277-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8448-162.3230-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8388-162.3972-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8216-162.4402-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8219-162.3681-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8133-162.4433-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8125-162.3955-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	8027-162.4242-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	7913-162.6021-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	6746-162.6633-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	6644-162.6291-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	6619-162.6166-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	6555-162.7677-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	6540-162.7550-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	6511-162.6519-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	6500-162.6530-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40
02-64	6433-162.6194-2-21	0-40	0-40	0-40	0-40	0-40	0-40	02-64	6188-162.1144-2-21	0-40	0-40	0-40	0-40	0-40	0-40

APPENDIX B (continued). Field Data and Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER				U CONCENTRATION				DOE SAMPLE NUMBER				U CONCENTRATION								
STATE	LATITUDE	LONGITUDE	REPLICATE	LAST SAMPLE LOCATION NUMBER	WATER SAMPLES ANALYZED BY FLUOROMETRY	UNITS IN PPB	STATE	LATITUDE	LONGITUDE	REPLICATE	LAST SAMPLE LOCATION NUMBER	WATER SAMPLES ANALYZED BY FLUOROMETRY	UNITS IN PPB	STATE	LATITUDE	LONGITUDE	REPLICATE	LAST SAMPLE LOCATION NUMBER	WATER SAMPLES ANALYZED BY FLUOROMETRY	UNITS IN PPB
02-62	5.04	147.7505	-2-2/	0-400517	0.55	02-62	0.30	144.7119	-2-2/	0-400581	1.30	02-61	7.10	143.4400	-2-2/	0-400441	1.40	0-400441	1.40	
02-62	5.07	147.7519	-2-2/	0-400518	0.70	02-62	0.27	144.7609	-2-2/	0-400582	1.75	02-61	6.95	143.4400	-2-2/	0-400442	0.60	0-400442	0.60	
02-62	5.21	147.7761	-2-2/	0-400519	0.55	02-61	0.08	144.5830	-2-2/	0-400583	1.00	02-61	6.77	143.4400	-2-2/	0-400443	1.00	0-400443	1.00	
02-62	5.46	147.7727	-2-2/	0-400520	1.00	02-61	7.10	144.3330	-2-2/	0-400584	1.35	02-61	6.41	143.4400	-2-2/	0-400444	0.90	0-400444	0.90	
02-62	5.60	147.7638	-2-2/	0-400521	0.85	02-61	7.70	144.3330	-2-2/	0-400585	0.20	02-61	6.40	143.4400	-2-2/	0-400445	1.10	0-400445	1.10	
02-62	5.62	147.7355	-2-2/	0-400522	1.35	02-61	7.72	144.4000	-2-2/	0-400586	0.80	02-61	6.40	143.4400	-2-2/	0-400446	0.50	0-400446	0.50	
02-62	5.62	147.7447	-2-2/	0-400523	1.40	02-61	7.43	144.3372	-2-2/	0-400587	1.50	02-61	6.40	143.4400	-2-2/	0-400447	0.20	0-400447	0.20	
02-62	5.62	147.7447	-2-2/	0-400524	1.30	02-61	7.43	144.3372	-2-2/	0-400588	0.35	02-61	6.40	143.4400	-2-2/	0-400448	0.20	0-400448	0.20	
02-62	5.62	147.7355	-2-2/	0-400525	0.55	02-61	7.40	144.3580	-2-2/	0-400589	1.10	02-61	6.40	143.4400	-2-2/	0-400449	0.20	0-400449	0.20	
02-62	5.62	147.7355	-2-2/	0-400526	1.45	02-61	7.43	144.3580	-2-2/	0-400590	0.85	02-61	6.40	143.4400	-2-2/	0-400450	1.05	0-400450	1.05	
02-62	5.62	147.7118	-2-2/	0-400527	0.65	02-61	7.43	144.3580	-2-2/	0-400591	0.20	02-61	6.40	143.4400	-2-2/	0-400451	0.75	0-400451	0.75	
02-62	5.62	147.7118	-2-2/	0-400528	1.10	02-61	7.43	144.3580	-2-2/	0-400592	0.80	02-61	6.40	143.4400	-2-2/	0-400452	1.75	0-400452	1.75	
02-62	5.62	147.7118	-2-2/	0-400529	1.55	02-61	7.43	144.3580	-2-2/	0-400593	0.20	02-61	6.40	143.4400	-2-2/	0-400453	0.75	0-400453	0.75	
02-62	5.62	147.7118	-2-2/	0-400530	0.70	02-61	7.43	144.3580	-2-2/	0-400594	0.30	02-61	6.40	143.4400	-2-2/	0-400454	0.40	0-400454	0.40	
02-62	5.62	147.7118	-2-2/	0-400531	1.15	02-61	7.43	144.3580	-2-2/	0-400595	0.45	02-61	6.40	143.4400	-2-2/	0-400455	0.70	0-400455	0.70	
02-62	5.62	147.7118	-2-2/	0-400532	1.40	02-61	7.43	144.3580	-2-2/	0-400596	0.20	02-61	6.40	143.4400	-2-2/	0-400456	0.60	0-400456	0.60	
02-62	5.62	147.7118	-2-2/	0-400533	0.75	02-61	7.43	144.3580	-2-2/	0-400597	0.30	02-61	6.40	143.4400	-2-2/	0-400457	0.40	0-400457	0.40	
02-62	5.62	147.7118	-2-2/	0-400534	0.85	02-61	7.43	144.3580	-2-2/	0-400598	0.20	02-61	6.40	143.4400	-2-2/	0-400458	0.20	0-400458	0.20	
02-62	5.62	147.7118	-2-2/	0-400535	0.40	02-61	7.43	144.3580	-2-2/	0-400599	0.45	02-61	6.40	143.4400	-2-2/	0-400459	0.60	0-400459	0.60	
02-62	5.62	147.7118	-2-2/	0-400536	1.70	02-61	7.43	144.3580	-2-2/	0-400600	0.20	02-61	6.40	143.4400	-2-2/	0-400460	0.70	0-400460	0.70	
02-62	5.62	147.7118	-2-2/	0-400537	0.85	02-61	7.43	144.3580	-2-2/	0-400601	0.25	02-61	6.40	143.4400	-2-2/	0-400461	0.60	0-400461	0.60	
02-62	5.62	147.7118	-2-2/	0-400538	1.20	02-61	7.43	144.3580	-2-2/	0-400602	0.30	02-61	6.40	143.4400	-2-2/	0-400462	0.45	0-400462	0.45	
02-62	5.62	147.7118	-2-2/	0-400539	1.10	02-61	7.43	144.3580	-2-2/	0-400603	0.50	02-61	6.40	143.4400	-2-2/	0-400463	0.50	0-400463	0.50	
02-62	5.62	147.7118	-2-2/	0-400540	0.95	02-61	7.43	144.3580	-2-2/	0-400604	0.20	02-61	6.40	143.4400	-2-2/	0-400464	0.50	0-400464	0.50	
02-62	5.62	147.7118	-2-2/	0-400541	1.40	02-61	7.43	144.3580	-2-2/	0-400605	0.75	02-61	6.40	143.4400	-2-2/	0-400465	0.25	0-400465	0.25	
02-62	5.62	147.7118	-2-2/	0-400542	0.55	02-61	7.43	144.3580	-2-2/	0-400606	0.25	02-61	6.40	143.4400	-2-2/	0-400466	2.10	0-400466	2.10	
02-62	5.62	147.7118	-2-2/	0-400543	1.30	02-61	7.43	144.3580	-2-2/	0-400607	0.25	02-61	6.40	143.4400	-2-2/	0-400467	0.70	0-400467	0.70	
02-62	5.62	147.7118	-2-2/	0-400544	0.45	02-61	7.43	144.3580	-2-2/	0-400608	1.05	02-61	6.40	143.4400	-2-2/	0-400468	0.20	0-400468	0.20	
02-62	5.62	147.7118	-2-2/	0-400545	1.90	02-61	7.43	144.3580	-2-2/	0-400609	0.40	02-61	6.40	143.4400	-2-2/	0-400469	0.35	0-400469	0.35	
02-62	5.62	147.7118	-2-2/	0-400546	1.70	02-61	7.43	144.3580	-2-2/	0-400610	1.60	02-61	6.40	143.4400	-2-2/	0-400470	0.30	0-400470	0.30	
02-62	5.62	147.7118	-2-2/	0-400547	1.10	02-61	7.43	144.3580	-2-2/	0-400611	1.30	02-61	6.40	143.4400	-2-2/	0-400471	3.50	0-400471	3.50	
02-62	5.62	147.7118	-2-2/	0-400548	0.55	02-61	7.43	144.3580	-2-2/	0-400612	1.10	02-61	6.40	143.4400	-2-2/	0-400472	0.50	0-400472	0.50	
02-62	5.62	147.7118	-2-2/	0-400549	1.30	02-61	7.43	144.3580	-2-2/	0-400613	0.75	02-61	6.40	143.4400	-2-2/	0-400473	1.35	0-400473	1.35	
02-62	5.62	147.7118	-2-2/	0-400550	0.45	02-61	7.43	144.3580	-2-2/	0-400614	1.50	02-61	6.40	143.4400	-2-2/	0-400474	1.10	0-400474	1.10	
02-62	5.62	147.7118	-2-2/	0-400551	1.00	02-61	7.43	144.3580	-2-2/	0-400615	1.15	02-61	6.40	143.4400	-2-2/	0-400475	2.75	0-400475	2.75	
02-62	5.62	147.7118	-2-2/	0-400552	0.45	02-61	7.43	144.3580	-2-2/	0-400616	0.40	02-61	6.40	143.4400	-2-2/	0-400476	1.05	0-400476	1.05	
02-62	5.62	147.7118	-2-2/	0-400553	0.35	02-61	7.43	144.3580	-2-2/	0-400617	0.55	02-61	6.40	143.4400	-2-2/	0-400477	0.95	0-400477	0.95	
02-62	5.62	147.7118	-2-2/	0-400554	0.70	02-61	7.43	144.3580	-2-2/	0-400618	1.05	02-61	6.40	143.4400	-2-2/	0-400478	0.95	0-400478	0.95	
02-62	5.62	147.7118	-2-2/	0-400555	1.40	02-61	7.43	144.3580	-2-2/	0-400619	0.55	02-61	6.40	143.4400	-2-2/	0-400479	0.95	0-400479	0.95	
02-62	5.62	147.7118	-2-2/	0-400556	0.80	02-61	7.43	144.3580	-2-2/	0-400620	1.00	02-61	6.40	143.4400	-2-2/	0-400480	1.20	0-400480	1.20	
02-62	5.62	147.7118	-2-2/	0-400557	1.00	02-61	7.43	144.3580	-2-2/	0-400621	0.65	02-61	6.40	143.4400	-2-2/	0-400481	1.05	0-400481	1.05	
02-62	5.62	147.7118	-2-2/	0-400558	0.40	02-61	7.43	144.3580	-2-2/	0-400622	0.85	02-61	6.40	143.4400	-2-2/	0-400482	1.85	0-400482	1.85	
02-62	5.62	147.7118	-2-2/	0-400559	0.60	02-61	7.43	144.3580	-2-2/	0-400623	0.65	02-61	6.40	143.4400	-2-2/	0-400483	1.03	0-400483	1.03	
02-62	5.62	147.7118	-2-2/	0-400560	0.55	02-61	7.43	144.3580	-2-2/	0-400624	0.95	02-61	6.40	143.4400	-2-2/	0-400484	0.90	0-400484	0.90	
02-62	5.62	147.7118	-2-2/	0-400561	0.45	02-61	7.43	144.3580	-2-2/	0-400625	1.50	02-61	6.40	143.4400	-2-2/	0-400485	0.95	0-400485	0.95	
02-62	5.62	147.7118	-2-2/	0-400562	0.55	02-61	7.43	144.3580	-2-2/	0-400626	1.65	02-61	6.40	143.4400	-2-2/	0-400486	0.35	0-400486	0.35	
02-62	5.62	147.7118	-2-2/	0-400563	0.40	02-61	7.43	144.3580	-2-2/	0-400627	0.85	02-61	6.40	143.4400	-2-2/	0-400487	1.75	0-400487	1.75	
02-62	5.62	147.7118	-2-2/	0-400564	0.60	02-61	7.43	144.3580	-2-2/	0-400628	0.65	02-61	6.40	143.4400	-2-2/	0-400488	1.20	0-400488	1.20	
02-62	5.62	147.7118	-2-2/	0-400565	0.55	02-61	7.43	144.3580	-2-2/	0-400629	0.95	02-61	6.40	143.4400	-2-2/	0-400489	1.65	0-400489	1.65	
02-62	5.62	147.7118	-2-2/	0-400566	0.45	02-61	7.43	144.3580	-2-2/	0-400630	1.25	02-61	6.40	143.4400	-2-2/	0-400490	1.03	0-400490	1.03	
02-62	5.62	147.7118	-2-2/	0-400567	0.55	02-61	7.43	144.3580	-2-2/	0-400631	0.70	02-61	6.40	143.4400	-2-2/	0-400491	0.90	0-400491	0.90	
02-62	5.62	147.7118	-2-2/	0-400568	0.45	02-61	7.43	144.3580	-2-2/	0-400632	0.60	02-61	6.40	143.4400	-2-2/	0-400492	1.85	0-400492	1.85	
02-62	5.62	147.7118	-2-2/	0-400569	0.55	02-61	7.43	144.3580	-2-2/	0-400633	0.50	02-61	6.40	143.4400	-2-2/	0-400493	1.05	0-400493	1.05	
02-62	5.62	147.7118	-2-2/	0-400570	0.45	02-61	7.43	144.3580	-2-2/	0-400634	0.60	02-61	6.40	143.4400	-2-2/	0-400494	0.90	0-400494	0.90	
02-62	5.62	147.7118	-2-2/	0-400571	0.45	02-61	7.43	144.3580	-2-2/	0-400635	0.60	02-61	6.40	143.4400	-2-2/	0-400495	1.20	0-400495	1.20	
02-62	5.62	147.7118	-2-2/	0-400572	0.75	02-61	7.43	144.3580	-2-2/	0-400636	0.90	02-61	6.40	143.4400	-2-2/	0-400496	1.65	0-400496	1.65	
02-62	5.62	147.7118	-2-2/	0-400573	1.95	02-61	7.43	144.3580												

APPENDIX C

LISTINGS OF FIELD DATA AND URANIUM CONCENTRATIONS FOR SEDIMENT SAMPLES

(See Appendix D for codes to listings)

APPENDIX C. Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER					DOE SAMPLE NUMBER					DOE SAMPLE NUMBER					DOE SAMPLE NUMBER									
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	
02-66	3338-160	5577-2-37	0-400001	3.90	02-66	162-160	2647-2-37	0-400057	11.50	02-66	2133-157	2027-2-37	0-400110	4.50	02-66	2133-157	2027-2-37	0-400110	4.50	02-66	2133-157	2027-2-37	0-400110	4.50
02-66	3338-160	5541-2-37	0-400002	3.30	02-66	1388-160	2832-2-37	0-400058	53.00	02-66	2416-156	0916-2-37	0-400111	13.90	02-66	2416-156	0916-2-37	0-400111	13.90	02-66	2416-156	0916-2-37	0-400111	13.90
02-66	3077-160	5505-2-37	0-400003	3.80	02-66	162-160	2605-2-37	0-400059	21.00	02-66	2388-156	0972-2-37	0-400112	17.40	02-66	2388-156	0972-2-37	0-400112	17.40	02-66	2388-156	0972-2-37	0-400112	17.40
02-66	2963-160	5508-2-37	0-400004	4.00	02-66	1372-160	2633-2-37	0-400060	18.00	02-66	2119-156	1577-2-37	0-400113	26.00	02-66	2119-156	1577-2-37	0-400113	26.00	02-66	2119-156	1577-2-37	0-400113	26.00
02-66	2944-160	5505-2-37	0-400005	4.90	02-66	1375-160	2805-2-37	0-400061	11.00	02-66	2105-156	1583-2-37	0-400114	14.70	02-66	2105-156	1583-2-37	0-400114	14.70	02-66	2105-156	1583-2-37	0-400114	14.70
02-66	3045-160	5527-2-37	0-400006	3.50	02-66	1250-160	3583-2-37	0-400062	10.90	02-66	1744-156	1611-2-37	0-400115	18.10	02-66	1744-156	1611-2-37	0-400115	18.10	02-66	1744-156	1611-2-37	0-400115	18.10
02-66	3065-160	5527-2-37	0-400007	3.10	02-66	1188-160	3500-2-37	0-400063	13.00	02-66	1779-156	1616-2-37	0-400116	12.00	02-66	1779-156	1616-2-37	0-400116	12.00	02-66	1779-156	1616-2-37	0-400116	12.00
02-66	3563-160	5527-2-37	0-400008	3.20	02-66	1168-160	3472-2-37	0-400064	10.60	02-66	1555-156	0888-2-37	0-400117	10.90	02-66	1555-156	0888-2-37	0-400117	10.90	02-66	1555-156	0888-2-37	0-400117	10.90
02-66	3530-160	5527-2-37	0-400009	10.00	02-66	3027-157	6097-2-37	0-400065	6.80	02-66	1552-156	0827-2-37	0-400118	16.40	02-66	1552-156	0827-2-37	0-400118	16.40	02-66	1552-156	0827-2-37	0-400118	16.40
02-66	3338-160	5566-2-37	0-400010	2.60	02-66	3041-157	6055-2-37	0-400066	8.40	02-66	1272-156	0994-2-37	0-400119	18.40	02-66	1272-156	0994-2-37	0-400119	18.40	02-66	1272-156	0994-2-37	0-400119	18.40
02-66	3555-160	5555-2-37	0-400011	3.60	02-66	2866-157	6111-2-37	0-400067	6.70	02-66	1269-156	0972-2-37	0-400120	31.00	02-66	1269-156	0972-2-37	0-400120	31.00	02-66	1269-156	0972-2-37	0-400120	31.00
02-66	3450-160	5544-2-37	0-400012	1.80	02-66	2875-157	6067-2-37	0-400068	6.30	02-66	1027-156	0777-2-37	0-400121	19.70	02-66	1027-156	0777-2-37	0-400121	19.70	02-66	1027-156	0777-2-37	0-400121	19.70
02-66	3172-160	5525-2-37	0-400013	2.10	02-66	2888-157	5325-2-37	0-400069	12.80	02-66	1050-156	0333-2-37	0-400122	77.00	02-66	1050-156	0333-2-37	0-400122	77.00	02-66	1050-156	0333-2-37	0-400122	77.00
02-66	3138-160	5525-2-37	0-400014	4.80	02-66	2916-157	5263-2-37	0-400070	23.00	02-66	1047-156	0333-2-37	0-400123	35.00	02-66	1047-156	0333-2-37	0-400123	35.00	02-66	1047-156	0333-2-37	0-400123	35.00
02-66	2913-160	5546-2-37	0-400015	4.20	02-66	2563-157	5577-2-37	0-400071	9.90	02-66	3652-155	9236-2-37	0-400124	15.50	02-66	3652-155	9236-2-37	0-400124	15.50	02-66	3652-155	9236-2-37	0-400124	15.50
02-66	2897-160	5543-2-37	0-400016	2.70	02-66	3125-157	5377-2-37	0-400072	10.10	02-66	2944-155	9833-2-37	0-400125	5.40	02-66	2944-155	9833-2-37	0-400125	5.40	02-66	2944-155	9833-2-37	0-400125	5.40
02-66	3305-159	6666-2-37	0-400017	3.10	02-66	2961-157	3786-2-37	0-400073	31.00	02-66	2959-155	9855-2-37	0-400126	15.50	02-66	2959-155	9855-2-37	0-400126	15.50	02-66	2959-155	9855-2-37	0-400126	15.50
02-66	2833-159	6547-2-37	0-400018	2.70	02-66	2916-157	3786-2-37	0-400074	63.00	02-66	2875-155	9888-2-37	0-400127	14.60	02-66	2875-155	9888-2-37	0-400127	14.60	02-66	2875-155	9888-2-37	0-400127	14.60
02-66	0438-161	4739-2-37	0-400019	2.40	02-66	2916-157	3999-2-37	0-400075	40.00	02-66	2869-155	9864-2-37	0-400128	10.10	02-66	2869-155	9864-2-37	0-400128	10.10	02-66	2869-155	9864-2-37	0-400128	10.10
02-66	0041-161	3363-2-37	0-400020	3.20	02-66	2922-157	3305-2-37	0-400076	42.00	02-66	2861-155	9236-2-37	0-400129	16.00	02-66	2861-155	9236-2-37	0-400129	16.00	02-66	2861-155	9236-2-37	0-400129	16.00
02-66	0041-161	3363-2-37	0-400021	6.70	02-66	2968-157	2250-2-37	0-400077	15.20	02-66	2861-155	8402-2-37	0-400130	17.20	02-66	2861-155	8402-2-37	0-400130	17.20	02-66	2861-155	8402-2-37	0-400130	17.20
02-66	2347-160	7361-2-37	0-400022	6.70	02-66	2733-157	2133-2-37	0-400078	52.00	02-66	2855-155	8388-2-37	0-400131	11.10	02-66	2855-155	8388-2-37	0-400131	11.10	02-66	2855-155	8388-2-37	0-400131	11.10
02-66	2355-160	6956-2-37	0-400023	16.20	02-66	2730-157	2097-2-37	0-400079	35.00	02-66	2750-155	9161-2-37	0-400132	14.80	02-66	2750-155	9161-2-37	0-400132	14.80	02-66	2750-155	9161-2-37	0-400132	14.80
02-66	2244-160	6611-2-37	0-400024	8.50	02-66	2845-157	1750-2-37	0-400080	22.00	02-66	2583-155	9694-2-37	0-400133	16.10	02-66	2583-155	9694-2-37	0-400133	16.10	02-66	2583-155	9694-2-37	0-400133	16.10
02-66	2188-160	6533-2-37	0-400025	9.50	02-66	4055-156	4661-2-37	0-400081	4.90	02-66	2569-155	9697-2-37	0-400134	15.10	02-66	2569-155	9697-2-37	0-400134	15.10	02-66	2569-155	9697-2-37	0-400134	15.10
02-66	2125-160	6555-2-37	0-400026	17.00	02-66	4055-156	2500-2-37	0-400082	3.60	02-66	2422-155	9166-2-37	0-400135	16.10	02-66	2422-155	9166-2-37	0-400135	16.10	02-66	2422-155	9166-2-37	0-400135	16.10
02-66	1538-160	6750-2-37	0-400027	16.70	02-66	4055-156	2500-2-37	0-400083	9.85	02-66	2263-155	9402-2-37	0-400136	44.00	02-66	2263-155	9402-2-37	0-400136	44.00	02-66	2263-155	9402-2-37	0-400136	44.00
02-66	1541-160	6700-2-37	0-400028	14.60	02-66	3763-156	2055-2-37	0-400084	3.80	02-66	2194-155	8333-2-37	0-400137	22.00	02-66	2194-155	8333-2-37	0-400137	22.00	02-66	2194-155	8333-2-37	0-400137	22.00
02-66	1545-160	6625-2-37	0-400029	11.00	02-66	3611-156	2081-2-37	0-400085	3.50	02-66	2166-155	8366-2-37	0-400138	38.00	02-66	2166-155	8366-2-37	0-400138	38.00	02-66	2166-155	8366-2-37	0-400138	38.00
02-66	1436-160	6930-2-37	0-400030	44.00	02-66	3611-156	2081-2-37	0-400086	6.00	02-66	2016-155	9625-2-37	0-400139	16.30	02-66	2016-155	9625-2-37	0-400139	16.30	02-66	2016-155	9625-2-37	0-400139	16.30
02-66	1402-160	6561-2-37	0-400031	100.00	02-66	3325-156	2083-2-37	0-400087	15.10	02-66	0875-155	7694-2-37	0-400140	4.50	02-66	0875-155	7694-2-37	0-400140	4.50	02-66	0875-155	7694-2-37	0-400140	4.50
02-66	1388-160	6394-2-37	0-400032	12.90	02-66	3319-156	1555-2-37	0-400088	14.00	02-66	2010-155	7763-2-37	0-400141	8.50	02-66	2010-155	7763-2-37	0-400141	8.50	02-66	2010-155	7763-2-37	0-400141	8.50
02-66	1125-160	8944-2-37	0-400033	5.20	02-66	3069-156	1166-2-37	0-400089	0.70	02-66	2025-155	7741-2-37	0-400142	5.30	02-66	2025-155	7741-2-37	0-400142	5.30	02-66	2025-155	7741-2-37	0-400142	5.30
02-66	1097-160	8944-2-37	0-400034	15.10	02-66	3069-156	1166-2-37	0-400090	9.80	02-66	1952-155	7425-2-37	0-400143	11.65	02-66	1952-155	7425-2-37	0-400143	11.65	02-66	1952-155	7425-2-37	0-400143	11.65
02-66	0988-160	7152-2-37	0-400035	21.00	02-66	3069-156	1166-2-37	0-400091	9.80	02-66	1688-155	8677-2-37	0-400144	7.60	02-66	1688-155	8677-2-37	0-400144	7.60	02-66	1688-155	8677-2-37	0-400144	7.60
02-66	0877-160	7152-2-37	0-400036	8.60	02-66	3113-156	0883-2-37	0-400092	14.00	02-66	1666-155	8666-2-37	0-400145	15.50	02-66	1666-155	8666-2-37	0-400145	15.50	02-66	1666-155	8666-2-37	0-400145	15.50
02-66	0791-160	7725-2-37	0-400037	14.50	02-66	2666-156	1000-2-37	0-400093	19.10	02-66	1666-155	8666-2-37	0-400146	54.00	02-66	1666-155	8666-2-37	0-400146	54.00	02-66	1666-155	8666-2-37	0-400146	54.00
02-66	0769-160	7716-2-37	0-400038	17.00	02-66	2652-156	0916-2-37	0-400094	29.00	02-66	1522-155	9772-2-37	0-400147	40.00	02-66	1522-155	9772-2-37	0-400147	40.00	02-66	1522-155	9772-2-37	0-400147	40.00
02-66	1777-160	3883-2-37	0-400039	37.00	02-66	2619-156	0827-2-37	0-400095	23.00	02-66	1500-155	9791-2-37	0-400148	26.00	02-66	1500-155	9791-2-37	0-400148	26.00	02-66	1500-155	9791-2-37	0-400148	2

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER				U CONCENTRATION				DOE SAMPLE NUMBER				U CONCENTRATION			
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
02-65	1138-102	3902-2-60	0-400165	2.70	02-65	6819-161	4280-2-37	0-400222	25.00	02-65	4458-161	3250-2-37	0-400277	1.40	
02-65	1150-165	3836-2-60	0-400166	2.73	02-65	6750-161	3972-2-37	0-400223	35.00	02-65	4454-161	3236-2-37	0-400278	1.50	
02-65	1083-162	3111-2-37	0-400167	2.80	02-65	6716-161	3944-2-37	0-400224	4.30	02-65	4511-161	1960-2-37	0-400279	1.60	
02-65	1059-162	3097-2-37	0-400168	3.90	02-65	6750-161	3444-2-37	0-400225	1.40	02-65	4508-161	1805-2-37	0-400280	19.70	
02-65	0652-162	1552-2-37	0-400169	30.00	02-65	6700-161	3444-2-37	0-400226	1.90	02-65	4522-161	0394-2-37	0-400281	14.90	
02-65	0547-162	1500-2-37	0-400170	26.00	02-65	6664-161	3472-2-37	0-400227	1.60	02-65	4500-161	0644-2-37	0-400282	18.10	
02-65	0129-162	1725-2-37	0-400171	18.00	02-65	5958-161	1416-2-37	0-400228	1.60	02-65	4508-161	0555-2-37	0-400283	14.30	
02-65	9891-161	5083-2-37	0-400172	7.90	02-65	5833-161	1458-2-37	0-400229	2.30	02-65	4333-161	2944-2-37	0-400284	9.30	
02-65	9877-161	5077-2-37	0-400173	5.80	02-65	5905-161	1416-2-37	0-400230	4.00	02-65	4244-161	1305-2-37	0-400285	12.60	
02-65	9616-161	5083-2-37	0-400174	2.30	02-65	5760-161	1088-2-37	0-400231	5.90	02-65	4250-161	1035-2-37	0-400286	24.00	
02-65	9944-161	4763-2-37	0-400175	0.14	02-65	5513-161	1069-2-37	0-400232	5.60	02-65	4314-161	1500-2-37	0-400287	21.00	
02-65	9925-161	2944-2-37	0-400176	6.90	02-65	5486-161	1027-2-37	0-400233	2.40	02-65	4155-161	1861-2-37	0-400288	5.40	
02-65	9861-161	4875-2-37	0-400177	5.60	02-65	5591-161	0930-2-40	0-400234	3.80	02-65	4077-161	1811-2-37	0-400289	12.45	
02-65	9691-161	3019-2-40	0-400178	9.70	02-65	5272-161	0916-2-37	0-400235	4.90	02-65	3988-161	1541-2-37	0-400290	12.70	
02-65	9635-161	4833-2-37	0-400180	3.30	02-65	5166-161	3958-2-37	0-400236	3.20	02-65	3963-161	1444-2-37	0-400291	8.00	
02-65	9655-161	3319-2-37	0-400181	9.40	02-65	5094-161	4027-2-37	0-400237	5.20	02-65	4016-161	1255-2-37	0-400292	28.00	
02-65	9639-161	3311-2-37	0-400182	17.70	02-65	5055-161	3777-2-37	0-400238	3.00	02-65	4041-161	1009-2-37	0-400293	14.10	
02-65	9688-161	2997-2-37	0-400183	7.60	02-65	5013-161	3002-2-37	0-400239	3.30	02-65	3872-161	3333-2-37	0-400294	5.70	
02-65	9455-161	4911-2-37	0-400184	6.50	02-65	4919-161	3002-2-37	0-400240	10.70	02-65	3847-161	3166-2-37	0-400295	5.20	
02-65	9416-161	4911-2-37	0-400185	6.00	02-65	4911-161	3833-2-37	0-400241	3.90	02-65	3995-161	2638-2-37	0-400296	4.25	
02-65	9452-161	4422-2-37	0-400186	17.90	02-65	4886-161	3850-2-37	0-400242	3.50	02-65	3916-161	3166-2-37	0-400297	4.80	
02-65	9430-161	4422-2-37	0-400187	10.40	02-65	4865-161	0972-2-37	0-400243	13.50	02-65	3916-161	3166-2-37	0-400298	4.75	
02-65	9458-161	4013-2-37	0-400188	13.30	02-65	4791-161	4805-2-37	0-400245	2.40	02-65	3822-161	2211-2-37	0-400299	12.20	
02-65	9458-161	4000-2-37	0-400189	10.40	02-65	4800-161	3922-2-40	0-400246	3.40	02-65	3875-161	1361-2-37	0-400300	30.00	
02-65	9486-161	2827-2-37	0-400190	12.80	02-65	4786-161	2855-2-37	0-400247	10.80	02-65	3863-161	0724-2-37	0-400301	1.00	
02-65	9475-161	2603-2-37	0-400191	10.00	02-65	4736-161	2527-2-37	0-400248	10.30	02-65	3763-161	3239-2-37	0-400303	5.40	
02-65	9397-161	2901-2-37	0-400192	15.10	02-65	4780-161	1344-2-37	0-400249	9.20	02-65	3716-161	2960-2-37	0-400304	6.85	
02-65	9383-161	2901-2-37	0-400193	9.00	02-65	4777-161	1841-2-37	0-400250	15.30	02-65	3666-161	2527-2-37	0-400305	9.20	
02-65	9263-161	2916-2-37	0-400194	10.60	02-65	4683-161	1638-2-37	0-400253	12.90	02-65	3675-161	2250-2-37	0-400306	6.40	
02-65	9258-161	2861-2-37	0-400195	17.10	02-65	4782-161	1305-2-37	0-400254	14.00	02-65	3675-161	2250-2-37	0-400307	6.20	
02-65	7250-161	5975-2-37	0-400196	10.80	02-65	4697-161	0966-2-37	0-400255	17.40	02-65	3643-161	0833-2-37	0-400308	5.10	
02-65	7225-161	5888-2-37	0-400197	3.70	02-65	4513-161	4527-2-37	0-400256	4.00	02-65	3458-161	3152-2-37	0-400309	2.50	
02-65	7216-161	5805-2-37	0-400198	14.70	02-65	4541-161	3638-2-37	0-400257	5.40	02-65	3500-161	2625-2-37	0-400310	6.90	
02-65	7288-161	5833-2-37	0-400199	14.70	02-65	4597-161	3000-2-37	0-400258	6.40	02-65	3451-161	1910-2-37	0-400311	91.00	
02-65	7097-161	6486-2-37	0-400200	6.80	02-65	4580-161	3011-2-37	0-400259	14.90	02-65	3388-161	1430-2-37	0-400312	3.80	
02-65	6700-161	5936-2-37	0-400203	6.30	02-65	4522-161	1683-2-37	0-400261	17.60	02-65	3380-161	0980-2-37	0-400313	3.40	
02-65	6611-161	6185-2-37	0-400204	10.10	02-65	4636-161	1472-2-37	0-400262	22.00	02-65	3300-161	2527-2-37	0-400314	3.30	
02-65	6591-161	5476-2-37	0-400205	14.90	02-65	4533-161	1055-2-37	0-400263	15.60	02-65	3361-161	2277-2-37	0-400315	2.70	
02-65	6586-161	5416-2-37	0-400206	21.00	02-65	4550-161	1033-2-37	0-400264	44.00	02-65	3250-161	1916-2-37	0-400316	60.00	
02-65	6466-161	6500-2-37	0-400207	14.50	02-65	4569-161	0986-2-37	0-400265	11.20	02-65	3347-161	1625-2-37	0-400317	4.00	
02-65	6472-161	6416-2-37	0-400208	14.60	02-65	4563-161	0908-2-37	0-400266	11.50	02-65	3277-161	1250-2-37	0-400319	4.40	
02-65	6392-161	6305-2-37	0-400209	18.40	02-65	4555-161	0852-2-37	0-400267	13.20	02-65	3180-161	1722-2-37	0-400320	4.40	
02-65	6333-161	6224-2-37	0-400210	18.00	02-65	4597-161	0805-2-37	0-400268	39.00	02-65	3130-161	1244-2-37	0-400320	23.00	
02-65	7077-161	2702-2-37	0-400212	12.10	02-65	4611-161	0750-2-37	0-400269	29.00	02-65	3116-161	128700-2-37	0-400321	4.00	
02-65	7033-161	4035-2-37	0-400213	24.00	02-65	4608-161	0747-2-37	0-400270	10.70	02-65	2100-161	6950-2-37	0-400322	8.60	
02-65	7027-161	4024-2-37	0-400214	4.10	02-65	4594-161	0677-2-37	0-400271	53.00	02-65	0475-161	6925-2-37	0-400325	75.00	
02-65	7000-161	3083-2-37	0-400216	3.65	02-65	4586-161	0384-2-37	0-400272	22.00	02-65	0841-161	6925-2-37	0-400326	15.60	
02-65	7016-161	2777-2-37	0-400217	5.10	02-65	4558-161	0391-2-37	0-400273	49.00	02-64	9966-162	2319-2-40	0-400328	12.80	
02-65	6916-161	3680-2-37	0-400219	54.00	02-65	4525-161	0550-2-37	0-400274	29.00	02-64	9948-162	2336-2-40	0-400329	25.00	
02-65	6866-161	4277-2-37	0-400220	20.00	02-65	4477-161	4647-2-37	0-400275	21.35	02-64	9703-162	3854-2-37	0-400330	3.60	
02-65	6827-161	4286-2-37	0-400221	8.10	02-65	4416-161	3860-2-37	0-400276	1.50	02-64	9766-162	3884-2-37	0-400331	3.20	

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER					U CONCENTRATION					DOE SAMPLE NUMBER					U CONCENTRATION						
STATE	LATITUDE	LONGITUDE	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	STATE	LATITUDE	LONGITUDE	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	STATE	LATITUDE	LONGITUDE	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	
02-64	9708-162.3426-2-37				0-400332	9.90	02-64	8219-162.3680-2-37				0-400384	51.00	02-64	5255-162.6111-2-37					0-400439	12.00
02-64	9708-162.3410-2-37				0-400333	6.60	02-64	8113-162.3433-2-37				0-400386	72.00	02-64	5263-162.6138-2-37					0-400440	23.00
02-64	9736-162.3205-2-40				0-400334	43.00	02-64	8141-162.3952-2-40				0-400387	64.00	02-64	5250-162.6138-2-37					0-400441	14.80
02-64	9730-162.3230-2-40				0-400335	7.20	02-64	8125-162.3958-2-37				0-400388	118.00	02-64	5250-162.6111-2-37					0-400442	14.40
02-64	9813-162.2883-2-40				0-400336	13.90	02-64	7008-162.6024-2-37				0-400390	7.50	02-64	4994-162.7986-2-37					0-400443	7.40
02-64	9707-162.2880-2-40				0-400337	32.00	02-64	7013-162.6021-2-37				0-400391	11.00	02-64	4972-162.8000-2-37					0-400444	8.10
02-64	9791-162.1930-2-37				0-400338	18.30	02-64	6758-162.6641-2-37				0-400392	10.20	02-64	4793-162.8305-2-37					0-400445	5.80
02-64	9845-162.1888-2-37				0-400339	4.50	02-64	6755-162.6666-2-40				0-400393	8.40	02-64	4763-162.8327-2-37					0-400446	3.40
02-64	9727-162.1833-2-37				0-400340	13.90	02-64	6736-162.6633-2-37				0-400394	9.00	02-64	4791-162.8168-2-37					0-400447	8.30
02-64	9722-162.1805-2-37				0-400341	4.85	02-64	6644-162.6291-2-37				0-400395	13.10	02-64	4685-162.8158-2-37					0-400448	9.00
02-64	9652-162.1974-2-37				0-400342	49.00	02-64	6519-162.6166-2-37				0-400396	18.30	02-64	4777-162.8125-2-37					0-400449	11.20
02-64	9666-162.1986-2-37				0-400343	21.00	02-64	6555-162.7677-2-37				0-400397	14.10	02-64	4611-162.8500-2-37					0-400451	10.30
02-64	9597-162.2527-2-40				0-400344	30.00	02-64	6550-162.7653-2-37				0-400398	13.60	02-64	4721-162.8194-2-37					0-400452	12.70
02-64	9588-162.2555-2-37				0-400345	45.00	02-64	6536-162.7714-2-37				0-400399	15.80	02-64	4694-162.8188-2-37					0-400453	14.90
02-64	9477-162.2861-2-37				0-400346	3.00	02-64	6511-162.6519-2-37				0-400400	7.70	02-64	4700-162.8144-2-37					0-400454	13.90
02-64	9477-162.2833-2-37				0-400347	25.00	02-64	6510-162.6530-2-37				0-400401	16.40	02-64	4463-162.8472-2-37					0-400455	5.80
02-64	9588-162.1888-2-37				0-400348	6.70	02-64	6383-162.8194-2-37				0-400402	10.20	02-64	4491-162.8611-2-37					0-400456	12.70
02-64	9519-162.1855-2-37				0-400349	25.00	02-64	6388-162.8144-2-37				0-400403	9.80	02-64	4491-162.8539-2-37					0-400457	10.00
02-64	9347-162.2916-2-37				0-400350	51.00	02-64	6388-162.8147-2-37				0-400404	12.10	02-64	4463-162.8661-2-37					0-400458	11.80
02-64	9333-162.2850-2-37				0-400351	73.00	02-64	6388-162.7583-2-37				0-400405	12.20	02-64	4463-162.8539-2-37					0-400459	10.30
02-64	9330-162.2666-2-37				0-400352	103.00	02-64	6355-162.7583-2-37				0-400406	26.00	02-64	4458-162.8569-2-37					0-400460	5.70
02-64	9327-162.2638-2-37				0-400353	111.00	02-64	6361-162.7375-2-37				0-400407	11.50	02-64	4319-162.8250-2-37					0-400461	4.40
02-64	9319-162.2332-2-37				0-400354	74.00	02-64	6333-162.7394-2-37				0-400408	9.30	02-64	4319-162.8250-2-37					0-400462	10.00
02-64	9345-162.2055-2-37				0-400355	73.00	02-64	6355-162.7277-2-37				0-400409	7.10	02-64	4394-162.8250-2-37					0-400463	9.20
02-64	9361-162.2008-2-37				0-400356	62.00	02-64	6355-162.7361-2-37				0-400410	10.80	02-64	4184-162.7597-2-37					0-400464	9.90
02-64	9111-162.2359-2-37				0-400357	78.00	02-64	6241-162.7366-2-40				0-400411	10.70	02-64	4184-162.7633-2-37					0-400465	10.20
02-64	9022-162.2355-2-37				0-400358	50.00	02-64	6194-162.7300-2-37				0-400412	9.00	02-64	4184-162.7472-2-37					0-400466	24.00
02-64	9055-162.2316-2-37				0-400359	13.70	02-64	6044-162.7180-2-37				0-400414	10.50	02-64	4184-162.76361-2-37					0-400467	6.90
02-64	8997-162.2370-2-40				0-400360	22.00	02-64	6069-162.7466-2-40				0-400415	11.70	02-64	3932-162.7972-2-37					0-400468	10.40
02-64	9013-162.2372-2-40				0-400361	33.00	02-64	6069-162.7119-2-37				0-400416	11.20	02-64	3791-162.86677-2-37					0-400469	7.20
02-64	9041-162.2333-2-37				0-400362	36.00	02-64	6033-162.7069-2-37				0-400417	9.80	02-64	3791-162.86750-2-37					0-400470	7.10
02-64	8950-162.2285-2-37				0-400363	30.00	02-64	6011-162.7041-2-37				0-400418	9.60	02-64	3611-162.7297-2-37					0-400471	12.40
02-64	8950-162.2270-2-40				0-400364	20.00	02-64	5997-162.6833-2-37				0-400419	5.70	02-64	3322-162.8233-2-40					0-400481	0.90
02-64	8936-162.2277-2-37				0-400365	49.00	02-64	5722-162.8588-2-37				0-400420	11.10	02-64	2332-162.8233-2-40					0-400481	2.20
02-64	8936-162.2285-2-37				0-400366	22.00	02-64	5716-162.8555-2-37				0-400421	8.40	02-64	2288-162.8516-2-40					0-400482	1.00
02-64	8869-162.2374-2-40				0-400367	33.00	02-64	5697-162.8589-2-37				0-400422	9.20	02-64	2288-162.8516-2-40					0-400483	1.20
02-64	8777-162.2345-2-37				0-400368	42.00	02-64	5722-162.8660-2-37				0-400423	7.30	02-64	2288-162.8516-2-40					0-400484	2.20
02-64	8810-162.2343-2-37				0-400369	43.00	02-64	5695-162.8633-2-37				0-400424	7.60	02-64	2288-162.8516-2-40					0-400485	1.20
02-64	8810-162.2308-2-37				0-400370	30.00	02-64	5611-162.8605-2-37				0-400425	8.90	02-64	2288-162.8516-2-40					0-400486	3.30
02-64	8833-162.2250-2-37				0-400371	29.00	02-64	5616-162.8605-2-37				0-400426	7.90	02-64	2288-162.8516-2-40					0-400489	2.30
02-64	8833-162.2247-2-37				0-400372	37.00	02-64	5611-162.8605-2-37				0-400427	7.40	02-64	2288-162.8516-2-40					0-400490	1.81
02-64	8786-162.2380-2-37				0-400373	33.00	02-64	5666-162.8944-2-37				0-400428	6.80	02-64	2288-162.8516-2-40					0-400491	1.00
02-64	8686-162.2378-2-37				0-400374	35.00	02-64	5555-162.8638-2-37				0-400429	8.40	02-64	2288-162.8516-2-40					0-400492	1.30
02-64	8786-162.2288-2-37				0-400375	37.00	02-64	5541-162.8666-2-37				0-400430	11.90	02-64	2288-162.8516-2-40					0-400493	0.85
02-64	8591-162.2583-2-37				0-400376	38.00	02-64	5555-162.8569-2-37				0-400431	9.60	02-64	2288-162.8516-2-40					0-400494	0.89
02-64	8591-162.2583-2-37				0-400377	45.00	02-64	5510-162.8671-2-37				0-400432	97.00	02-64	2288-162.8516-2-40					0-400495	2.30
02-64	8472-162.2271-2-37				0-400378	45.00	02-64	5445-162.8627-2-37				0-400433	13.00	02-64	2288-162.8516-2-40					0-400496	1.90
02-64	8469-162.2329-2-37				0-400379	35.00	02-64	5445-162.8637-2-37				0-400434	37.00	02-64	2288-162.8516-2-40					0-400497	2.60
02-64	8469-162.2317-2-37				0-400380	40.00	02-64	5427-162.8611-2-37				0-400435	6.90	02-64	2288-162.8516-2-40					0-400498	2.50
02-64	8388-162.2394-2-37				0-400381	41.00	02-64	5410-162.8555-2-37				0-400436	8.10	02-64	2288-162.8516-2-40					0-400499	2

APPENDIX C (continued). Field Data and Uranium Concentrations for Sediment Samples

DOE SAMPLE NUMBER										DOE SAMPLE NUMBER										DOE SAMPLE NUMBER									
U CONCENTRATION										U CONCENTRATION										U CONCENTRATION									
STATE										STATE										STATE									
LATITUDE										LATITUDE										LATITUDE									
LONGITUDE										LONGITUDE										LONGITUDE									
DOE LAB										DOE LAB										DOE LAB									
SAMPLE TYPE										SAMPLE TYPE										SAMPLE TYPE									
REPLICATE										REPLICATE										REPLICATE									
LAST SAMPLE LOCATION NUMBER										LAST SAMPLE LOCATION NUMBER										LAST SAMPLE LOCATION NUMBER									
SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN PPM										SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN PPM										SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN PPM									
02-62.6886-147.6397-2-37	0-400501	1.00	02-62.0402-147.8669-2-37	0-400554	0.39	02-61.7033-144.3011-2-37	0-400610	1.40		02-62.6886-147.6397-2-37	0-400502	1.00	02-62.0402-147.8669-2-37	0-400555	1.50	02-61.7142-144.1388-2-37	0-400611	1.20		02-62.6886-147.6397-2-37	0-400503	1.40	02-62.0402-147.8669-2-37	0-400556	0.87	02-61.7144-144.1280-2-37	0-400612	1.10	
02-62.6886-147.6397-2-37	0-400502	1.40	02-62.0402-147.8669-2-37	0-400555	0.87	02-61.7142-144.1388-2-37	0-400611	1.20		02-62.6886-147.6397-2-37	0-400504	1.60	02-62.0402-147.8669-2-37	0-400557	0.69	02-61.7144-144.1055-2-37	0-400613	1.30		02-62.6886-147.6397-2-37	0-400505	1.90	02-62.0402-147.8669-2-37	0-400558	1.60	02-61.7144-144.1055-2-37	0-400614	1.90	
02-62.6886-147.6397-2-37	0-400506	1.60	02-62.0402-147.8669-2-37	0-400559	1.20	02-61.7144-144.1055-2-37	0-400614	1.90		02-62.6886-147.6397-2-37	0-400507	1.80	02-62.0402-147.8669-2-37	0-400560	1.80	02-61.7144-144.1055-2-37	0-400615	1.10		02-62.6886-147.6397-2-37	0-400508	1.80	02-62.0402-147.8669-2-37	0-400561	1.80	02-61.7144-144.1055-2-37	0-400616	1.20	
02-62.6886-147.6397-2-37	0-400509	1.20	02-62.0402-147.8669-2-37	0-400562	1.50	02-61.7144-144.1055-2-37	0-400618	1.90		02-62.6886-147.6397-2-37	0-400510	0.90	02-62.0402-147.8669-2-37	0-400563	1.90	02-61.7144-144.1055-2-37	0-400619	1.40		02-62.6886-147.6397-2-37	0-400511	0.51	02-62.0402-147.8669-2-37	0-400564	1.80	02-61.7144-144.1055-2-37	0-400620	1.40	
02-62.6886-147.6397-2-37	0-400513	1.90	02-62.0402-147.8669-2-37	0-400568	1.60	02-61.7144-144.1055-2-37	0-400621	1.90		02-62.6886-147.6397-2-37	0-400514	0.23	02-62.0402-147.8669-2-37	0-400569	1.60	02-61.7144-144.1055-2-37	0-400622	4.30		02-62.6886-147.6397-2-37	0-400515	0.40	02-62.0402-147.8669-2-37	0-400570	1.60	02-61.7144-144.1055-2-37	0-400623	3.40	
02-62.6886-147.6397-2-37	0-400516	0.40	02-62.0402-147.8669-2-37	0-400571	1.70	02-61.7144-144.1055-2-37	0-400624	4.40		02-62.6886-147.6397-2-37	0-400517	0.15	02-62.0402-147.8669-2-37	0-400572	0.52	02-61.7144-144.1055-2-37	0-400625	4.00		02-62.6886-147.6397-2-37	0-400518	0.37	02-62.0402-147.8669-2-37	0-400573	0.40	02-61.7144-144.1055-2-37	0-400626	3.10	
02-62.6886-147.6397-2-37	0-400519	0.15	02-62.0402-147.8669-2-37	0-400574	0.65	02-61.7144-144.1055-2-37	0-400627	3.80		02-62.6886-147.6397-2-37	0-400521	0.28	02-62.0402-147.8669-2-37	0-400575	0.68	02-61.7144-144.1055-2-37	0-400628	2.10		02-62.6886-147.6397-2-37	0-400522	0.90	02-62.0402-147.8669-2-37	0-400576	0.50	02-61.7144-144.1055-2-37	0-400629	2.60	
02-62.6886-147.6397-2-37	0-400524	1.10	02-62.0402-147.8669-2-37	0-400578	1.30	02-61.7144-144.1055-2-37	0-400631	1.00		02-62.6886-147.6397-2-37	0-400525	0.94	02-62.0402-147.8669-2-37	0-400579	2.70	02-61.7144-144.1055-2-37	0-400632	1.90		02-62.6886-147.6397-2-37	0-400526	1.30	02-62.0402-147.8669-2-37	0-400580	2.30	02-61.7144-144.1055-2-37	0-400633	1.20	
02-62.6886-147.6397-2-37	0-400529	1.60	02-62.0402-147.8669-2-37	0-400581	1.40	02-61.7144-144.1055-2-37	0-400636	2.10		02-62.6886-147.6397-2-37	0-400531	0.93	02-62.0402-147.8669-2-37	0-400582	3.00	02-61.7144-144.1055-2-37	0-400635	2.10		02-62.6886-147.6397-2-37	0-400532	1.60	02-62.0402-147.8669-2-37	0-400583	1.60	02-61.7144-144.1055-2-37	0-400636	1.40	
02-62.6886-147.6397-2-37	0-400533	1.60	02-62.0402-147.8669-2-37	0-400586	1.40	02-61.7144-144.1055-2-37	0-400638	1.40		02-62.6886-147.6397-2-37	0-400534	1.20	02-62.0402-147.8669-2-37	0-400587	1.50	02-61.7144-144.1055-2-37	0-400639	0.66		02-62.6886-147.6397-2-37	0-400535	1.60	02-62.0402-147.8669-2-37	0-400588	1.90	02-61.7144-144.1055-2-37	0-400640	1.70	
02-62.6886-147.6397-2-37	0-400536	1.60	02-62.0402-147.8669-2-37	0-400589	1.60	02-61.7144-144.1055-2-37	0-400642	1.70		02-62.6886-147.6397-2-37	0-400537	1.40	02-62.0402-147.8669-2-37	0-400590	1.60	02-61.7144-144.1055-2-37	0-400644	1.40		02-62.6886-147.6397-2-37	0-400538	2.10	02-62.0402-147.8669-2-37	0-400591	1.80	02-61.7144-144.1055-2-37	0-400645	1.90	
02-62.6886-147.6397-2-37	0-400539	2.10	02-62.0402-147.8669-2-37	0-400593	1.90	02-61.7144-144.1055-2-37	0-400647	2.20		02-62.6886-147.6397-2-37	0-400541	1.60	02-62.0402-147.8669-2-37	0-400594	1.60	02-61.7144-144.1055-2-37	0-400649	2.40		02-62.6886-147.6397-2-37	0-400542	2.80	02-62.0402-147.8669-2-37	0-400595	2.00	02-61.7144-144.1055-2-37	0-400650	2.00	
02-62.6886-147.6397-2-37	0-400543	1.30	02-62.0402-147.8669-2-37	0-400596	1.60	02-61.7144-144.1055-2-37	0-400651	2.00		02-62.6886-147.6397-2-37	0-400544	1.60	02-62.0402-147.8669-2-37	0-400597	1.30	02-61.7144-144.1055-2-37	0-400652	1.90		02-62.6886-147.6397-2-37	0-400545	0.86	02-62.0402-147.8669-2-37	0-400598	1.60	02-61.7144-144.1055-2-37	0-400653	2.20	
02-62.6886-147.6397-2-37	0-400546	1.50	02-62.0402-147.8669-2-37	0-400599	1.60	02-61.7144-144.1055-2-37	0-400654	2.20		02-62.6886-147.6397-2-37	0-400547	1.60	02-62.0402-147.8669-2-37	0-400600	2.40	02-61.7144-144.1055-2-37	0-400655	1.70		02-62.6886-147.6397-2-37	0-400548	1.50	02-62.0402-147.8669-2-37	0-400601	1.50	02-61.7144-144.1055-2-37	0-400656	2.60	
02-62.6886-147.6397-2-37	0-400549	1.50	02-62.0402-147.8669-2-37	0-400602	1.80	02-61.7144-144.1055-2-37	0-400658	3.00		02-62.6886-147.6397-2-37	0-400551	1.70	02-62.0402-147.8669-2-37	0-400603	2.20	02-61.7144-144.1055-2-37	0-400659	2.50		02-62.6886-147.6397-2-37	0-400552	1.50	02-62.0402-147.8669-2-37	0-400604	1.30	02-61.7144-144.1055-2-37	0-400660	2.50	
02-62.6886-147.6397-2-37	0-400551	1.70	02-62.0402-147.8669-2-37	0-400605	2.00	02-61.7144-144.1055-2-37	0-400661	2.20		02-62.6886-147.6397-2-37	0-400553	1.50	02-62.0402-147.8669-2-37	0-400606	2.50	02-61.7144-144.1055-2-37	0-400662	2.10		02-62.6886-147.6397-2-37	0-400554	0.69	02-62.0402-147.8669-2-37	0-400607	6.30	02-61.7144-144.1055-2-37	0-400663	2.10	
02-62.6886-147.6397-2-37	0-400553	0.69	02-62.0402-147.8669-2-37	0-400609	1.10	02-61.7144-144.1055-2-37	0-400663	2.10		02-62.6886-147.6397-2-37	0-400555	1.60	02-62.0402-147.8669-2-37	0-400610	1.40	02-61.7144-144.1055-2-37	0-400664	1.90		02-62.6886-147.6397-2-37	0-400556	1.60	02-62.0402-147.8669-2-37	0-400608	1.60	02-61.7144-144.1055-2-37	0-400665	1.90	

DOE SAMPLE NUMBER						DOE SAMPLE NUMBER						DOE SAMPLE NUMBER						DOE SAMPLE NUMBER								
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	U CONCENTRATION	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	U CONCENTRATION	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	U CONCENTRATION	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
02-61	4333-142	7791-2-37			0-400664	2.60																				
02-61	4233-142	7791-2-37			0-400666	2.40																				
02-61	4179-142	8027-2-37			0-400667	3.00																				
02-61	4169-142	8030-2-37			0-400668	2.10																				
02-61	3775-142	7052-2-40			0-400669	1.80																				
02-61	3802-142	7052-2-40			0-400670	1.80																				
02-61	2625-142	1662-2-40			0-400671	2.40																				
02-61	2456-142	6768-2-37			0-400672	2.00																				
02-61	2416-142	6446-2-37			0-400673	2.50																				
02-61	2416-142	6414-2-37			0-400674	2.50																				
02-61	2408-142	6452-2-37			0-400675	2.40																				
02-61	2377-142	6997-2-37			0-400676	2.40																				
02-61	2391-142	6935-2-37			0-400677	2.50																				
02-61	2383-142	6366-2-37			0-400678	2.60																				
02-61	2380-142	6352-2-37			0-400679	2.00																				
02-61	2330-142	6013-2-37			0-400680	3.00																				
02-61	2336-142	5986-2-37			0-400681	2.60																				
02-61	2308-142	5763-2-40			0-400682	2.60																				
02-61	2302-142	5763-2-37			0-400683	2.50																				
02-61	2280-142	5138-2-37			0-400684	3.00																				
02-61	2269-142	5149-2-37			0-400685	2.90																				
02-61	2175-142	6705-2-37			0-400686	2.80																				
02-61	2036-142	7004-2-40			0-400687	2.40																				
02-61	2044-142	6538-2-37			0-400688	3.00																				
02-61	2027-142	6222-1-37			0-400689	2.90																				
02-61	2063-142	6008-2-37			0-400690	3.40																				
02-61	2044-142	5949-2-37			0-400691	3.40																				
02-61	2033-142	5891-2-37			0-400692	2.90																				
02-61	2066-142	5664-2-37			0-400693	2.90																				
02-61	2158-142	5331-2-37			0-400695	2.90																				

APPENDIX D
CODE TO DATA LISTINGS

APPENDIX D-I
EXPLANATION OF CODES USED

APPENDIX D-II
KEY TO SAMPLE TYPES

APPENDIX D-I

EXPLANATION OF CODES USED

DOE SAMPLE NUMBER

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

Alaska	= 02	Montana	= 30	Wyoming	= 56
Colorado	= 08	New Mexico	= 35		

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 Type" (Appendix D-II).

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 smaller sequential numbers representing earlier samples back to 000, 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 000.

LASL SAMPLE LOCATION NUMBER AND FIELD DATA

LASL SAMPLE LOCATION NUMBER: A unique six-digit number permanently assigned by the LASL to every location sampled in each state. 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 the various states as follows.

<u>Location Numbers</u>	<u>State</u>
From 000 001 through 099 999	= New Mexico
From 100 001 through 199 999	= Colorado
From 200 001 through 299 999	= Wyoming
From 300 001 through 399 999	= Montana
From 400 001 through and above	= Alaska

URANIUM CONCENTRATION: The value given in this column is the analytically derived value of the uranium concentration found in the water sample in parts per billion (ppb) or in the sediment sample in parts per million (ppm). Sample Types Nos. 1 through 10 and 21 through 30 are water samples, with their uranium concentrations given in ppb, while Sample Type Nos. 11 through 20 and 31 through 40 are sediment samples, with their uranium concentrations given in ppm.

APPENDIX D-II

KEY TO SAMPLE TYPES

The two-digit number assigned each sample type in these specifications designates three distinct properties of all samples taken by LASL in the NURE HSSR project. These properties are:

- (A) The general sample source (i.e., spring or stream or dry stream);
- (B) The sample medium (i.e., water or sediment); and
- (C) The treatment given the sample in the field or laboratory prior to its analysis by the LASL.

The express purpose of this numerical key and the accompanying specifications is to provide the user with the necessary tie between each individual suite of field and laboratory data and the specific type, or form of sample, to which they relate. This key and these specifications, therefore, define the various sample types to be collected by LASL in the Department of Energy (DOE) HSSR for uranium. The key numbers are inserted in the appropriate columns of the specially formatted DOE sample numbering system to positively identify the sample type for all LASL sample data submitted to the Grand Junction Office.

KEY NO.

SOURCE / MEDIUM / TREATMENT

- 27 - Stream water sample acidified to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
- 37 - Wet stream sediment sample dried at $\leq 100^\circ\text{C}$ and sieved to -80 mesh through stainless steel sieves
- 40 - Dry stream sediment sample dried at $\leq 100^\circ\text{C}$ (if necessary) and sieved to -80 mesh through stainless steel sieves

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66° 30'

66° 15'

66°

SELAWIK A-5 (6 Locations)

SELAWIK B-4 (5 Locations)

SELAWIK A-4 (19 Locations)

PLA

SAMPLE I
IN THE VIC
SELAWIK HILLS AND CLEM
SOUTHEAST KOTZEBUE SOL
(OVERLAYS PORTIONS OF THE SELAWIK AI

E I

LOCATIONS
 NITY OF THE
 AND GRANITE MOUNTAINS
 ND AREA, NORTHWEST ALASKA
 ID CANDLE SHEETS AT 1:250 000 SCALE)

66°30'

66°15'

66°

65°45'

65°30'

LEGEND

STREAM WATER	TOTAL URANIUM (ppb)
◻	> 0.00 - 0.05
◻	> 0.05 - 0.10
◻	> 0.10 - 0.20
◻	> 0.20 - 0.40
◻	> 0.40 - 0.80
◻	> 0.80 - 1.60
◻	> 1.60 - 3.20
◻	> 3.20

5 0 5 10 15 20 MILES

5 0 5 10 15 20 25 30 KILOMETERS

GRAPHIC PLOT OF URANIUM CONCENTRATION
FROM

SAMPLE 1
IN THE VICINITY OF
SELAHIK HILLS AND CLEM
SOUTHEAST KOTZEBUE SOUND
(OVERLAYS PORTIONS OF THE SELAWIK AREA
(AS WELL AS PLATE 1)

☐	>0.10 - 0.20
☐	>0.20 - 0.40
☐	>0.40 - 0.80
☐	>0.80 - 1.60
☐	>1.60 - 3.20
☐	>3.20

PLATE I-A

CONCENTRATIONS OF STREAM WATERS
FROM
THE LOCATIONS
VICINITY OF THE
LEMON AND GRANITE MOUNTAINS
SOUND AREA, NORTHWEST ALASKA
(AND CANDLE SHEETS AT 1:250 000 SCALE)
PLATE I, HEREWITH)

65°45'

65° 30'

LEGEND

STREAM SEDIMENT	TOTAL URANIUM (ppm)
□	≤ 1.0
□	1.1 - 2.0
□	2.1 - 4.0
□	4.1 - 8.0
□	8.1 - 16.0
□	16.1 - 32.0
□	32.1 - 64.0
□	> 64.0

GRAPHIC PLOT OF URANIUM CON

SAMPLI
IN THE \
SELAWIK HILLS AND CL
SOUTHEAST KOTZEBUE S
(OVERLAYS PORTIONS OF THE SELAWIK
(AS WELL AS PI

☐	2.1 - 4.0
☐	4.1 - 8.0
☐	8.1 - 16.0
☐	16.1 - 32.0
☐	32.1 - 64.0
☐	> 64.0

1: 250 000

160° 30'

160°

159°

PLATE I-B

CONCENTRATIONS OF STREAM SEDIMENTS
FROM

SAMPLE LOCATIONS
IN THE VICINITY OF THE
KILBuck AND GRANITE MOUNTAINS
IN THE SOUND AREA, NORTHWEST ALASKA
(FROM 1:250 000 SCALE)
(SEE PLATE I, HEREWITH)

66° 30'

SHUNGNAK B-4
(8 Locations)

SHUNGNAK B-3
(8 Locations)

1:63 360
MAP BOUNDARIES

065-066
067-068
070
069
171-172

073
074
075
076-077
080
078-079

66° 15'

100-101
102

106-103
104-107
108

PURCELL
MOUNTAINS

109-110

●081

HUGHES B-6 (12 Locations)

082 083

084 085

086

087 088

089 090

091 092

093

SHUNGNAK B-1
(19 Locations)

ZANE

094 095 096
098 099 097

125
126 127 130 132 133
129 134
128 135 136

HILLS

111 112

114 113

CONE
MTN

115 116 117 118

119 120 121

122 123 124

137 136 139 140 144 145 146
141 161 142 147 148 149
150 152 156 157 158
151 153 154 155 159
160 143

CARIBOU
MTN

SCALE

PL

SAMPLE
PURCELL MOUNTAIN
KOYUKUK AREA, Y
(OVERLAYS PORTIONS OF THE SHUNGNAK AREA)

E 1:250 000

LATE II

E LOCATIONS
IN THE
AINS AND ZANE HILLS
(YUKON REGION, ALASKA
K AND HUGHES SHEETS AT 1:250 000 SCALE)

66°30'

66°15'

LEGEND

STREAM WATER	TOTAL URANIUM (ppb)
◦	>0.00 - 0.05
□	>0.05 - 0.10
□	>0.10 - 0.20
□	>0.20 - 0.40
□	>0.40 - 0.80
□	>0.80 - 1.60
□	>1.60 - 3.20

LEGEND

STREAM WATER	TOTAL URANIUM (ppb)
□	> 0.00 - 0.05
□	> 0.05 - 0.10
□	> 0.10 - 0.20
□	> 0.20 - 0.40
□	> 0.40 - 0.80
□	> 0.80 - 1.60
□	> 1.60 - 3.20

☐	>0.20 - 0.40
☐	>0.40 - 0.80
☐	>0.80 - 1.60
☐	>1.60 - 3.20
☐	>3.20

PLAT

GRAPHIC PLOT OF URANIUM CONCENTRATIONS
 FROM
 SAMPLE L
 IN
 PURCELL MOUNTAIN
 KOYUKUK AREA, YUKON
 (OVERLAYS PORTIONS OF THE SHUNGNAK AREA
 (AS WELL AS PLATE

- 0.40
- 0.80
- 1.60
- 3.20
3.20

156°30'

156°

155°30'

SCALE 1:250 000

10 15 20 25 MILES

10 15 20 25 KILOMETERS

PLATE II-A

CONCENTRATIONS OF STREAM WATERS
FROM
SAMPLE LOCATIONS
IN THE
MOUNTAINS AND ZANE HILLS
AREA, YUKON REGION ALASKA
(FROM NGNAK AND HUGHES SHEETS AT 1:250 000 SCALE)
(PLATE II, HERewith)

66°30'

66°15'

LEGEND

STREAM SEDIMENT	TOTAL URANIUM (ppm)
◻	≤ 1.0
◻	1.1 - 2.0
◻	2.1 - 4.0
◻	4.1 - 8.0
◻	8.1 - 16.0
◻	16.1 - 32.0

LEGEND

TOTAL URANIUM (ppm)
≤ 1.0
1.1 - 2.0
2.1 - 4.0
4.1 - 8.0
8.1 - 16.0
16.1 - 32.0

◦	≤ 1.0
□	1.1 - 2.0
□	2.1 - 4.0
□	4.1 - 8.0
□	8.1 - 16.0
□	16.1 - 32.0
□	32.1 - 64.0
□	> 64.0

66° 157°45' 157° 30' 157°

SCALE 1:2

PLATI
GRAPHIC PLOT OF URANIUM CONC
FR
SAMPLE L
IN
PURCELL MOUNTAIN
KOYUKUK AREA, YUK
(OVERLAYS PORTIONS OF THE SHUNGNAK A
(AS WELL AS PLATE

SCALE 1:250 000

PLATE II-B
 CONCENTRATIONS OF STREAM SEDIMENTS
 FROM
 SAMPLE LOCATIONS
 IN THE
 MOUNTAINS AND ZANE HILLS
 IN THE YUKON REGION ALASKA
 (BASED ON DATA FROM U.S. GEOLOGICAL SURVEY
 MAPS AND HUGHES SHEETS AT 1:250 000 SCALE)
 (PLATE II, HEREWITH)

65° 15'

BENDELEBEN A-1 (10 Locations)

65°

SOLOMON D-1 (62 Locations)

64° 45'

SOLOMON C-2 (53 Locations)

PLATE III

**SAMPLE LOCATIONS
IN THE
DARBY AND KWIKTALIK MOUNTAINS
NORTHEAST NORTON SOUND AREA, NORTHWEST ALASKA
(VERLAYS PORTIONS OF THE BENDELEBEN AND SOLOMON SHEETS AT 1:250 000 SCALE)**

5°15'

65°

64°45'

PLATE III - A

GRAPHIC PLOT OF URANIUM CONCENTRATIONS OF STREAM WATERS
FROM
SAMPLE LOCATIONS
IN THE

DARBY AND KWIKTALIK MOUNTAINS

NORTHEAST NORTON SOUND AREA, NORTHWEST ALASKA

OVERLAYS PORTIONS OF THE BENDELEBEN AND SOLOMON SHEETS AT 1:250 000 SCALE
(AS WELL AS PLATE III, HEREWITH)

65° 15'

65°

64° 45'

PLATE III-B
GRAPHIC PLOT OF URANIUM CONCENTRATIONS OF STREAM SEDIMENTS
FROM
SAMPLE LOCATIONS
IN THE
DARBY AND KWIKTALIK MOUNTAINS
NORTHEAST NORTON SOUND AREA, NORTHWEST ALASKA
(RELAYS PORTIONS OF THE BENDELEBEN AND SOLOMON SHEETS AT 1:250 000 SCALE)
(AS WELL AS PLATE III, HEREWITH)

63°

TALKEETNA D-2 (13 Locations)
MTNS

TALKEETNA D-1 (4 Locations)
MTNS

COAL CREEK

62°45'

TALKEETNA C-2 (22 Locations)
MTNS

SUSTINA RIVER

510
511

512
513
514
515
516
517
518
519
520

GOOSE CREEK

62°30'

1:63 360 SCALE
MAP BOUNDARIES

TALKEETNA B-1 (31 Locations)
MTNS

TALKEETNA D-1 (4 Locations)
MTNS

1:250 000 SCALE TOPOGRAPHIC
MAP BOUNDARIES

COAL CREEK

A RIVER

REEK

TALKEETNA B-1 (31 Locations)
MTNS

PLATE IV

SAMPLE LOCATIONS
IN THE
UPPER SUSITNA RIVER DRAINAGE AND SOUTHEAST TALKEETNA
COOK INLET AREA, SOUTHCENTRAL ALA
(OVERLAYS PORTIONS OF THE TALKEETNA MOUNTAINS AND GULKANA)

PLATE IV

SAMPLE LOCATIONS
IN THE
ITNA RIVER DRAINAGE AND SOUTHEAST TALKEETNA MOUNTAINS
COOK INLET AREA, SOUTHCENTRAL ALASKA
(THE TALKEETNA MOUNTAINS AND GULKANA SHEETS AT 1:250 000 SCALE)

63°

62°45'

62°30'

GRAPHIC PLOT OF URANIUM CONCENTRATIONS OF STREAM
FROM
SAMPLE LOCATIONS
IN THE
UPPER SUSITNA RIVER DRAINAGE AND SOUTHEAST TALKEETNA
COOK INLET AREA, SOUTHCENTRAL ALASKA
(OVERLAYS PORTIONS OF THE TALKEETNA MOUNTAINS AND GULKANA
(AS WELL AS PLATE IV, HEREWITH))

LEGEND

STREAM WATER	TOTAL URANIUM (ppb)
□	> 0.00 - 0.05
□	> 0.05 - 0.10
□	> 0.10 - 0.20
□	> 0.20 - 0.40
□	> 0.40 - 0.80
□	> 0.80 - 1.60
□	> 1.60 - 3.20
□	> 3.20

147°

146° 30'

SCALE 1:250 000

PLATE IV-A

URANIUM CONCENTRATIONS OF STREAM WATERS
 FROM
 SAMPLE LOCATIONS
 IN THE
 TALKEETNA AND SOUTHEAST TALKEETNA MOUNTAINS
 AREA, SOUTH CENTRAL ALASKA
 (AS SHOWN ON USGS GEOLOGIC MAPS AND GULKANA SHEETS AT 1:250 000 SCALE)
 (SEE PLATE IV, HEREWITH)

63°

2°45'

2°30'

100

100

100

100

100

100

100

LEGEND

STREAM	TOTAL URANIUM
--------	---------------

PLATE IV-B
 GRAPHIC PLOT OF URANIUM CONCENTRATIONS OF STREAM WATER
 FROM
 SAMPLE LOCATIONS
 IN THE
 UPPER SUSITNA RIVER DRAINAGE AND SOUTHEAST ALASKA
 COOK INLET AREA, SOUTHCENTRAL ALASKA
 (OVERLAYS PORTIONS OF THE TALKEETNA MOUNTAINS AND GULKAN, ALASKA
 (AS WELL AS PLATE IV, HEREWITH))

SEDIMENT	(ppm)
□	≤ 1.0
□	11 - 2.0
□	21 - 4.0
□	41 - 8.0
□	81 - 16.0
□	161 - 32.0
□	321 - 64.0
□	> 64.0

B
 TATIONS OF STREAM SEDIMENTS
 TIONS
 OUTHEAST TALKEETNA MOUNTAINS
 (CENTRAL ALASKA
 AND GULKANA SHEETS AT 1:250 000 SCALE)
 (, HEREWITH)

62°

VALDEZ D-2 (4 Locat

EAST F
CHETASLIN

583

COPPER

MOUNT
DU RULLE

61°45'

VALDEZ C-3 (11 Locations)

RIVER

1:63 360 SCALE
MAP BOUNDARIES

CHUGACH

BERNARD
CREEK

597-598

599
600
601
602
603
604
605

607

61°30' VALDEZ C-4 (6 Locations)

506

MOUNTAINS

61°15'

145°30'

145°15'

145°

144°45'

SCA

P

SAMPL
COPPER, CHITINA AND KOTSINA RIVER DRAIN
COPPER RIVER-GULF OF
(OVERLAYS PORTIONS OF THE VALDEZ

1:250 000

ATE V

LOCATIONS
THE
AGES OF THE CHUGACH AND WRANGELL MOUNTAINS
ASKA AREA, SOUTH CENTRAL ALASKA
AND McCARTHY SHEETS AT 1:250 000 SCALE)

62°

11 11
11

LEGEND

STREAM WATER	TOTAL URANIUM (ppb)
-----------------	------------------------

GRAPHIC PLOT OF URANIUM CONCEN
 FROM
 SAMPLE LO
 IN TH
 COPPER, CHITINA AND KOTSINA RIVER DRAINAGE
 COPPER RIVER-GULF OF ALAS
 (OVERLAYS PORTIONS OF THE VALDEZ AND
 (AS WELL AS PLAT

□	> 0.00 - 0.05
□	> 0.05 - 0.10
□	> 0.10 - 0.20
□	> 0.20 - 0.40
□	> 0.40 - 0.80
□	> 0.80 - 1.60
□	> 1.60 - 3.20
□	> 3.20

144°30' 144°15' 144° 143°45'

Los Alamos
scientific laboratory
of the University of California

-A

CONCENTRATIONS OF STREAM WATERS

LOCATIONS

OF THE CHUGACH AND WRANGELL MOUNTAINS

IN THE AREA SOUTH-CENTRAL ALASKA

(BASED ON McCARTHY SHEETS AT 1:250 000 SCALE)

AND, HEREWITH)

62°

61°45'

LEGEND

PLATE V
GRAPHIC PLOT OF URANIUM CONCENTRATIONS
FROM
SAMPLE LOCATIONS
IN THE
COPPER, CHITINA AND KOTSINA RIVER DRAINAGES
COPPER RIVER-GULF OF ALASKA
(OVERLAYS PORTIONS OF THE VALDEZ AND
(AS WELL AS PLATE

ONS OF STREAM SEDIMENTS

ONS

THE CHUGACH AND WRANGELL MOUNTAINS
AREA SOUTHCENTRAL ALASKA
(ARTHY SHEETS AT 1:250 000 SCALE)
(HEREWITH)

61°30'

WRANGELL MOUNTAINS

FIREWEED MOUNTAIN

647

648

650 651

649

652

653

654

645 646

655

McCARTHY

PORPHYRY MOUNTAIN

656

657

658

659

661

663

665

667

660

662

664

666

668

SOURDOUGH PEAK

670

669

McCARTHY B-5
(16 Locations)

61°15'

McCARTHY B-6 (11 Locations)

1:63 360 SCALE
MAP BOUNDARIES

671

YOUNG CREEK

672

675

676

686

687

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690

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PLATE VI

**SAMPLE LOCATIONS
IN THE
NIZINA RIVER DRAINAGE, NEAR MCCARTHY AND MAC COLL RIDGE
COPPER RIVER-GULF OF ALASKA AREA, SOUTH CENTRAL ALASKA
(OVERLAYS PORTIONS OF THE MCCARTHY SHEET AT 1:250 000 SCALE)**

61° 30'

61° 15'

LEGEND

STREAM WATER	TOTAL URANIUM (ppb)
■	>0.00 - 0.05
□	>0.05 - 0.10
□	>0.10 - 0.20

☐	>0.20 - 0.40
☐	>0.40 - 0.80
☐	>0.80 - 1.60
☐	>1.60 - 3.20
☐	>3.20

61°
143°15' 143° 142°45' 142°30'

SCALE 1:250 000

PLATE VI-A

GRAPHIC PLOT OF URANIUM CONCENTRATIONS OF STREAM WATERS
FROM
SAMPLE LOCATIONS
IN THE
NIZINA RIVER DRAINAGE, NEAR McCARTHY AND MAC COLL RIDGE
COPPER RIVER-GULF OF ALASKA AREA, SOUTHCENTRAL ALASKA
(OVERLAYS PORTIONS OF THE McCARTHY SHEET AT 1:250 000 SCALE)
(AS WELL AS PLATE VI, HEREWITH)

61° 30'

61° 15'

LEGEND

STREAM SEGMENT	TOTAL URANIUM (ppm)
•	≤ 1.0
□	1.1 - 2.0
◻	2.1 - 4.0

PLATE VI-B

GRAPHIC PLOT OF URANIUM CONCENTRATIONS OF STREAM SEDIMENTS
FROM
SAMPLE LOCATIONS
IN THE
NIZINA RIVER DRAINAGE, NEAR McCARTHY AND MAC COLL RIDGE
COPPER RIVER-GULF OF ALASKA AREA, SOUTHCENTRAL ALASKA
(OVERLAYS PORTIONS OF THE McCARTHY SHEET AT 1: 250 000 SCALE)
(AS WELL AS PLATE VI, HEREWITH)