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Analyses and Descriptions of Geochemical Samples, Sipsey Wilderness and Additions, Lawrence and Winston Counties, Alabama

by

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OPEN-FILE REPORT

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.

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Analyses and Descriptions of Geochemical Samples, Sipsey Wilderness and Additions, Lawrence and Winston Counties, Alabama

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Abstract

Semiquantitative emission spectrographic analyses for 31 elements on 271 stream sediments and 53 rock samples from Sipsey Wilderness and additions, Lawrence and Winston Counties, Ala., are reported here in detail. All sample localities are given in Universal Transverse Mercator (UTM) coordinates. Brief descriptions of rock samples are also included. Rocks analyzed are mostly sandstone, shale, and limestone. No obviously anomalous values related to mineralized rock are in the data.

Introduction

The analyses in this open-file report (table 1) are on samples from the Sipsey Wilderness and additions, Lawrence and Winston Counties, Ala. The additions to Sipsey Wilderness include the following areas outlined in the Second Roadless Area Review and Evaluation (RARE II) by the U.S. Forest Service, January 1979: Sipsey Addition and Borden Creek, recommended for wilderness; and Thompson Creek, Hagood Creek, Montgomery-Borden Creek, Brushy Fork, and Rabbittown Addition, recommended for further planning. The samples, collected by A.E. Grosz, P.G. Schruben, R.M. Turner, and W.H. Wright, Jr., in November 1978 and April 1979, include 271 stream-sediment and 53 rock samples from the study area and vicinity. Most of the rock samples, which are described briefly below, are chip-composite samples of representative materials collected from outcrop or roadcut. Some of the rock is partly weathered, but generally the freshest material available was sampled. The samples were analyzed by the U.S. Geological Survey (USGS) in Denver, Colo., or by companies under contract to the USGS.

A discussion of the results of the analytical work and maps showing sample localities are given by Grosz (1981).

EXPLANATION

WILDERNESS AREA

A Sipsey Wilderness

PROPOSED WILDERNESS AREAS

B Sipsey Addition
C Borden Creek

FURTHER PLANNING AREAS

D Thompson Creek
E Hagood Creek
F Montgomery-Borden Creek
G Brushy Fork
H Rabbittown Addition

▨ Excluded from Further-Planning Area D

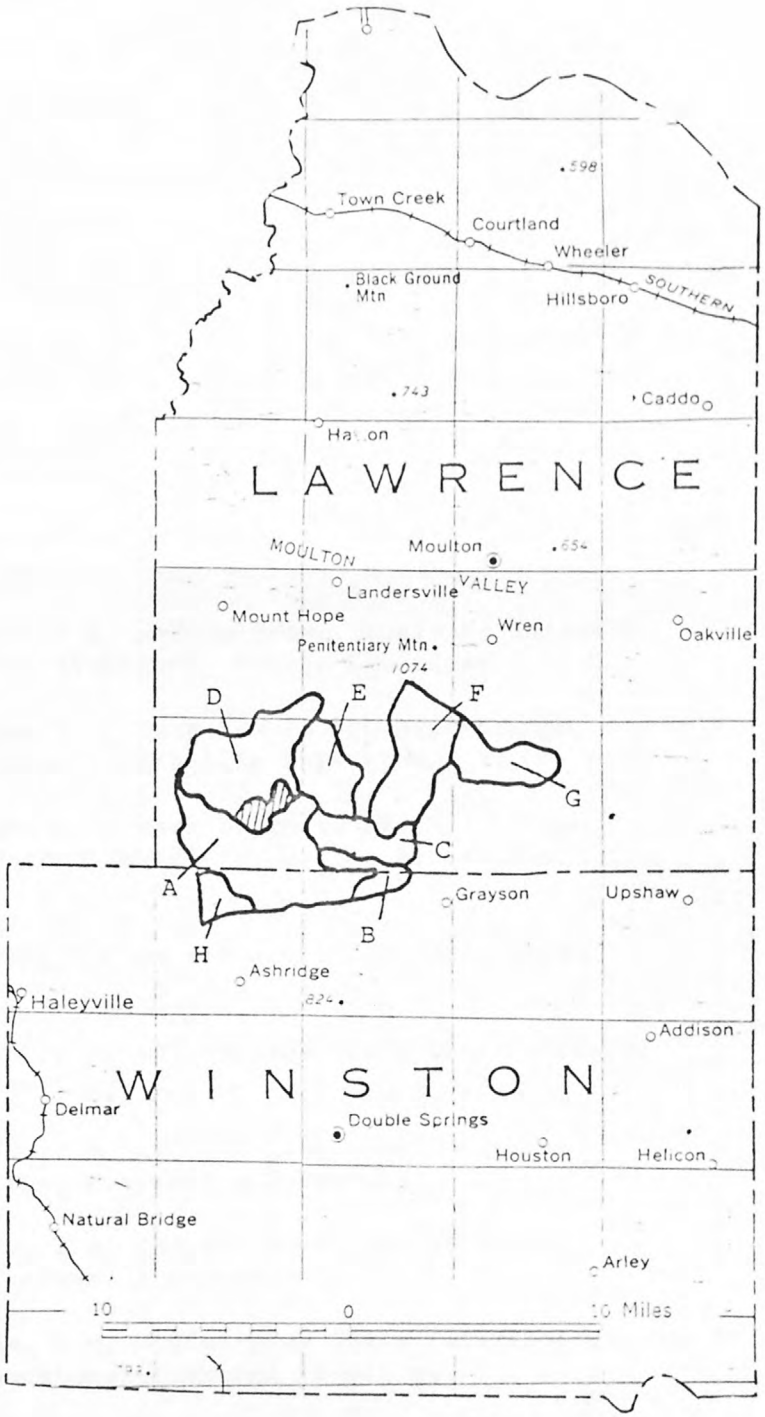

Figure 1.--Index map showing the Sipsey Wilderness and additions.

Description of rock samples

Sample No.	Description
GSR 001	Chip-composite sample, 1 m, brownish-red, medium-grained, limonite-cemented sandstone; Pottsville Formation.
GSR 002	Chip-composite sample, 1 m, tan to pale brown, medium- to coarse-grained pebbly sandstone; Pottsville Formation.
GSR 003	Chip-composite sample, 1 m, dark-gray shale; Pottsville Formation.
GSR 024	Chip-composite sample, 1 m, medium gray, finely to coarsely crystalline bioclastic limestone; Bangor Limestone.
GSR 026	Chip-composite sample, 1 m, dark tan to brownish-orange, coarse-grained sandstone; Pottsville Formation.
GSR 047	Chip-composite sample, 1 m, dark-brown to black, medium- to fine-grained sandstone, Mn(?) -cemented; Pottsville Formation.
GSR 048	Grab sample, dark orange-brown surficial ooze from 047; Pottsville Formation.
GSR 064	Chip-composite sample, 1 m, medium-gray shale with oxidized laminae; Parkwood Formation.
GSR 065	Chip-composite sample, 1 m, reddish-gray, coarse-grained poorly sorted sandstone; Pottsville Formation.
GSR 072	Chip-composite sample, 1 m, tan to brown, poorly sorted friable sandstone; Pottsville Formation.
GSR 073	Chip-composite sample, 1 m, medium-gray shale interlayered with fine-grained sandstone; Parkwood Formation.
GSR 074	Chip-composite sample, 1 m, tan, fine-grained well-sorted sandstone; Parkwood Formation.
GSR 075	Chip-composite sample, 1 m, tan, poorly sorted coarse-grained friable sandstone; Pottsville Formation.
GSR 076	Channel sample, 1 m, light-gray clay interlayed with red oxidized friable sandstone; Pottsville Formation.

Description of rock samples --Continued

Sample No.	Description
GSR 077	Channel sample, 1 m, gray shale interlayered with very fine grained dark orange-brown sandstone; Pottsville Formation.
GSR 078	Chip-composite sample, 1 m, tan to dark-brown, coarse-grained poorly sorted sandstone; Pottsville Formation.
GSR 079	Chip-composite sample, 1 m, tan, medium- to coarse-grained sandstone; Pottsville Formation.
GSR 080	Chip-composite sample, 1 m, tan, poorly sorted coarse-grained sandstone; Parkwood Formation.
GSR 081	Channel sample, 1 m, pink coarse-grained friable sandstone with thin (2-in.-thick) iron crust; Pottsville Formation.
GSR 082	Chip-composite sample, 1 m, tan to brown, well-cemented, poorly sorted coarse-grained sandstone; Pottsville Formation.
GSR 083	Chip-composite sample, 1/2 m, dark reddish-brown iron hat (gossan) overlying tan friable sandstone; Pottsville Formation.
GSR 084	Chip-composite sample, 1 m, dark-gray shale; Pottsville Formation.
WSR 007	Chip-composite sample, 1 m, white to light-gray oolitic limestone; Bangor Limestone.
WSR 008	Chip-composite sample, 1 m, medium-tan poorly sorted sandstone; Pottsville Formation.
WSR 015	Chip-composite sample, 1 m, dark-brown, fine-grained poorly cemented sandstone; Pottsville Formation.
WSR 016	Grab sample, reddish-orange ooze emanating from dark-brown to black medium-grained sandstone; Pottsville Formation.
WSR 029	Grab sample, iron concretion in mudstone; Parkwood Formation.
SSR 001B	Chip-composite sample, 1 m, gray limestone; Bangor Limestone.
SSR 007B	Chip-composite sample, 1 m, gray limestone; Bangor Limestone.

Description of rock samples--Continued

Sample No.	Description
SSR 015	Chip-composite sample, 1 m, gray oolitic limestone; Bangor Limestone.
SSR 016	Chip-composite sample, 1 m, gray limestone; Bangor Limestone.
SSR 022B	Chip-composite sample, 1 m, gray limestone; Bangor Limestone.
SSR 025B	Chip-composite sample, 1 m, sandstone; Parkwood Formation.
SSR 039A	Chip-composite sample, 1 m, tan to black crossbedded sandstone; Pottsville Formation.
SSR 042	Chip-composite sample, 1 m, crossbedded sandstone, Pottsville Formation.
SSR 048	Chip-composite sample, 1 m, sandstone; Pottsville Formation.
TSR 001	Chip-composite sample, 1 m, medium-gray limestone; Bangor Limestone.
TSR 004	Chip-composite sample, 1 m, light-gray finely crystalline limestone; Bangor Limestone.
TSR 008	Chip-composite sample, 1 m, pale-gray crystalline limestone; Bangor Limestone.
TSR 014A	Chip-composite sample, 1 m, slaty sandstone; Parkwood Formation.
TSR 016	Channel sample, 1 m, grayish-brown fissile shale; Parkwood Formation.
TSR 019	Chip-composite sample, 1 m, bluish-gray shale; Parkwood Formation.
TSR 026	Chip-composite sample, 1 m, light-gray, finely crystalline limestone; Bangor Limestone.
TSR 031	Chip-composite sample, 1 m, gray to black finely laminated shale; Pottsville Formation.
TSR 032	Chip-composite sample, 1/3 m, sandstone; Pottsville Formation.
TSR 033	Chip-composite sample, 1 m, red sandstone; Pottsville Formation.

Description of rock samples--Continued

Sample No.	Description
TSR 042	Chip-composite sample, 1 m, gray crystalline limestone; Bangor Limestone.
TSR 051	Chip-composite sample, 1 m, sandstone; Parkwood Formation.
TSR 054	Chip-composite sample, 1 m, dark-gray to black shale; Parkwood Formation.
TSR 064	Grab sample, iron hat (gossan) in sandstone; Pottsville Formation.
TSR 065	Grab sample, crossbedded sandstone; Pottsville Formation.
TSR 066	Grab sample, pebbly sandstone; Pottsville Formation.
TSR 067	Grab sample, well-sorted tan sandstone; Pottsville Formation.

ANALYTICAL TECHNIQUES

Rock samples were crushed to approximately 0.25-in. (6-mm) particle size, and were pulverized to minus 140-mesh (0.105 mm) in a vertical grinder having ceramic plates. Stream sediments were dried and sieved to minus 80-mesh (0.177 mm) and then were pulverized.

Each sample was analyzed semiquantitatively for 31 elements by D. F. Siems, USGS, using a six-step, direct-current-arc, optical-emission spectrographic method (Grimes and Marranzino, 1968), or for 34 elements by Shannon Gore of Specomp Services, Inc., Hayden, Colo., under contract to the USGS. In addition, each sample was analyzed for zinc by means of an atomic-absorption technique (Ward and others, 1969, p. 20) by B.F. Arbogast, USGS, and for uranium by means of a spectrofluorimetric method, by J. D. Mensik of Geoco, Inc. Wheat Ridge, Colo., under contract to the USGS.

The semiquantitative spectrographic values are reported as six steps per order of magnitude (0.15, 0.2, 0.3, 0.5, 0.7, 1, or multiples of 10 of these numbers) and are approximate geometric midpoints of the concentration ranges. The precision is shown to be within one adjoining reporting interval on each side of the reported value 83 percent of the time and within two adjoining intervals 96 percent of the time (Motooka and Grimes, 1976).

REFERENCES CITED

Grimes, D. J., and Marranzino, A. P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic materials: U.S. Geological Survey Circular 591, 6 p.

Grosz, A. E., 1981 , Geochemical survey of the Sipsey Wilderness and additions, Lawrence and Winston Counties, Alabama: U.S. Geological Survey Miscellaneous Field Studies Map MF-1288-A [in press].

Motooka, J. M., and Grimes, D. J., 1976, Analytical precision of one-sixth order semiquantitative spectrographic analysis: U.S. Geological Survey Circular 738, 25 p.

Ward, F. N., Nakagawa, H. M., Harms, T. F., and Van Sickle, G. H., 1969, Atomic-absorption methods of analysis useful in geochemical exploration: U.S. Geological Survey Bulletin 1289, 45 p.

Table 1.--Analyses of stream-sediment and rock samples

[The X and Y coordinates are Universal Transverse Mercator (UTM) grid values, zone 16. The X-coordinate is the easting value; the Y is the northing (the initial number 3 in the northing values was deleted for programming convenience). Symbols used include S, semiquantitative spectrographic analysis; <, less than lower limit of determination; >, greater than upper limit of determination; E-spec, emission spectrography; AA-Zn-P, atomic-absorption determination of zinc; N, not detected at limit of detection; --, not looked for. The limits apply under ideal conditions, and in some cases interferences will narrow the limits. All data are in parts per million (ppm) except where indicated in percent (%). Elements looked for spectrographically but not found and their lower limit of determination: As(<200) except GSR 048--L (detected, but below limit of determination); Au(<10); Ag(<0.5) except SSR 038--L, SSR 040--0.5, SSR 041--0.5, SSR 043--L, SSR 044--0.5, SSR 045--L, SSR 046--0.5, SSR 047--L, SSR 054--0.5; Bi(<10); Cd(<20); Mo(<5) except SSR 015--10, SSR 040--5, SSR 049--10, TSR 004--5, TSR 023--10, TSR 024--10, TSR 031--5, TSR 040--L, TSR 043--L, TSR 051--5, TSR 065--5, WSR 005--10, WSR 015--L, WSR 017--5, WSR 033--5; Sb(<100); Sn(<10); Th(<100) except SSR 048--100; W(<50); and Zn(< 200)]

Table 1.--Analyses of stream-sediment and rock samples

Stream sediment

sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO
GSR004	458,350	800,400	1.50	.30	.07	.70	300	70	500	1.5	7
GSR005	458,200	800,370	1.50	.30	.10	.50	1,000	70	500	2.0	10
GSR006	458,120	800,120	1.50	.30	.07	.70	2,000	100	500	2.0	10
GSR007	457,950	800,200	3.00	.70	.07	.70	2,000	150	700	3.0	20
GSR008	457,900	799,800	1.50	.20	.07	.50	2,000	100	500	1.5	15
GSR009	457,570	799,580	1.50	.20	.10	.50	1,500	100	300	2.0	10
GSR010	457,450	799,720	2.00	.30	.07	.70	2,000	100	500	2.0	20
GSR011	457,180	799,480	1.50	.20	.07	.30	700	70	300	1.0	7
GSR012	457,280	798,480	1.50	.20	.07	.50	700	70	300	1.0	10
GSR013	457,600	798,120	1.50	.30	.10	.50	1,000	100	500	2.0	10
GSR014	457,420	797,800	2.00	.20	.10	.50	700	100	300	2.0	10
GSR015	458,650	797,550	2.00	.20	.05	.70	2,000	100	300	2.0	20
GSR016	458,450	797,680	1.00	.20	.20	.50	2,000	100	500	1.5	7
GSR017	458,620	798,040	1.50	.20	.05	.50	1,000	70	500	1.5	7
GSR018	458,400	798,[illegible]90	1.00	.15	.05	.50	700	100	300	1.0	7
GSR019	458,500	799,100	1.50	.20	.07	.50	1,000	100	300	1.5	10
GSR020	458,640	799,300	1.00	.15	.07	.50	700	70	300	1.0	7
GSR021	458,820	799,250	1.50	.20	.05	.50	1,000	100	500	1.0	10
GSR022	459,050	799,650	1.00	.20	.05	.50	1,000	100	300	1.0	10
GSR023	458,930	799,670	1.50	.20	.05	.50	200	70	300	1.5	7
GSR025	457,980	793,630	.70	.10	<.05	.50	200	70	200	1.0	5
GSR027	458,300	794,040	1.00	.15	.05	.50	500	70	300	1.0	10
GSR028	458,700	793,920	1.50	.20	.07	.70	2,000	100	300	1.5	10
GSR029	458,990	793,950	1.00	.15	.05	.30	500	70	200	1.0	7
GSR030	459,200	794,320	1.00	.15	.07	.50	700	50	300	1.5	10
GSR031	459,050	794,480	.70	.15	.05	.50	300	50	300	1.5	7
GSR032	458,060	794,580	1.00	.15	.05	.30	700	50	200	1.5	7
GSR033	458,100	794,680	1.00	.10	.05	.50	200	70	200	1.0	5
GSR034	458,520	794,880	1.00	.15	.05	.30	1,000	50	300	1.5	10
GSR035	459,180	795,040	1.50	.15	.05	.50	100	70	300	1.0	5
GSR036	459,380	794,860	1.00	.10	<.05	.30	200	50	150	1.0	5
GSR037	459,660	794,950	1.50	.10	.05	.50	100	50	200	1.0	5
GSR038	459,660	795,180	1.00	.15	.05	.50	300	70	200	1.5	10
GSR039	460,140	795,260	1.00	.15	.05	.50	300	70	300	1.0	7
GSR040	460,190	795,150	1.50	.15	.07	.50	700	50	300	2.0	15
GSR041	460,580	794,940	2.00	.30	.05	.50	700	70	300	2.0	10
GSR042	461,160	795,240	1.50	.20	.10	.50	1,000	70	300	1.5	10
GSR043	461,780	795,120	1.00	.15	.05	.30	1,000	50	200	1.5	7
GSR044	463,770	796,280	.70	.15	.05	.50	1,000	50	200	1.5	10
GSR045	463,540	795,970	2.00	.30	.20	.50	2,000	100	500	2.0	15
GSR046	463,320	795,900	1.50	.20	.10	.30	700	70	500	2.0	7
GSR049	463,250	795,510	2.00	.20	.10	.50	2,000	70	300	2.0	15
GSR050	463,060	795,500	1.50	.20	.15	.50	1,000	70	300	1.5	10
GSR051	463,660	795,120	2.00	.20	.10	.50	2,000	100	300	1.5	10
GSR052	463,780	794,820	2.00	.20	.20	.50	1,500	100	300	1.5	10

Table 1.--Analyses of stream-sediment and rock samples--Continued

	Stream sediment										
sample	S-CR	S-CU	S-LA	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR
GSR004	100	10	50	20	15	30	7	<100	70	50	500
GSR005	100	10	30	20	20	50	7	100	70	30	300
GSR006	150	10	50	<20	20	50	7	<100	70	30	300
GSR007	100	20	70	20	50	30	15	100	100	50	300
GSR008	150	10	50	20	20	70	5	<100	70	20	500
GSR009	200	10	50	<20	20	20	7	<100	50	30	700
GSR010	100	15	50	20	30	50	10	<100	100	30	300
GSR011	200	5	20	<20	10	15	5	<100	50	15	300
GSR012	150	5	30	<20	15	20	5	100	50	20	700
GSR013	100	10	50	<20	20	20	7	100	70	30	500
GSR014	100	15	50	<20	20	50	7	100	70	30	500
GSR015	100	10	70	20	20	50	7	<100	70	30	500
GSR016	100	7	30	<20	15	50	5	100	50	20	500
GSR017	100	7	30	<20	15	30	5	<100	50	20	500
GSR018	70	5	30	<20	10	20	<5	<100	50	20	500
GSR019	200	7	50	<20	20	30	5	<100	70	20	500
GSR020	150	5	30	<20	10	20	5	<100	50	30	700
GSR021	150	5	30	<20	15	30	5	<100	70	100	700
GSR022	50	<5	20	<20	10	20	5	<100	50	15	500
GSR023	100	5	50	20	10	50	5	<100	70	30	500
GSR025	150	N	30	<20	<5	15	N	<100	30	20	1,000
GSR027	70	<5	30	20	10	<10	5	<100	50	20	1,000
GSR028	150	7	50	20	20	50	5	100	70	30	700
GSR029	150	10	50	<20	10	20	5	<100	50	20	700
GSR030	200	10	50	<20	20	30	5	<100	50	30	300
GSR031	100	7	50	<20	10	20	5	<100	50	20	300
GSR032	200	5	50	<20	10	30	5	<100	50	20	500
GSR033	150	5	70	20	7	20	5	100	50	20	1,000
GSR034	50	7	50	20	10	30	5	<100	70	20	700
GSR035	150	7	30	20	10	15	5	100	70	20	500
GSR036	150	<5	150	<20	7	15	10	<100	30	50	1,000
GSR037	100	<5	30	<20	5	20	5	<100	50	20	1,000
GSR038	150	5	50	<20	10	20	5	<100	50	20	500
GSR039	150	5	50	20	10	20	7	<100	50	30	700
GSR040	70	10	50	20	15	30	5	<100	50	30	500
GSR041	100	10	30	20	15	50	5	<100	70	20	300
GSR042	100	10	50	20	20	50	5	<100	70	30	500
GSR043	30	10	50	<20	15	50	5	<100	50	15	200
GSR044	100	5	50	<20	10	30	5	<100	50	15	500
GSR045	70	15	70	20	20	50	7	100	70	30	300
GSR046	150	7	30	<20	20	30	5	100	30	20	300
GSR049	20	10	50	20	30	70	7	100	50	20	500
GSR050	200	7	30	20	20	20	5	<100	50	20	500
GSR051	200	10	30	20	20	20	5	<100	50	20	500
GSR052	70	10	50	20	20	30	5	<100	70	30	500

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	S-AL%	S-NA%	S-LI	U E-SPEC	AA-ZN-P
GSR004	--	--	--	<1	30
GSR005	--	--	--	<1	40
GSR006	--	--	--	<1	35
GSR007	--	--	--	<1	60
GSR008	--	--	--	<1	35
GSR009	--	--	--	<1	25
GSR010	--	--	--	<1	40
GSR011	--	--	--	<1	30
GSR012	--	--	--	<1	20
GSR013	--	--	--	<1	40
GSR014	--	--	--	<1	35
GSR015	--	--	--	<1	55
GSR016	--	--	--	<1	30
GSR017	--	--	--	<1	35
GSR018	--	--	--	<1	20
GSR019	--	--	--	<1	30
GSR020	--	--	--	<1	20
GSR021	--	--	--	<1	25
GSR022	--	--	--	<1	15
GSR023	--	--	--	<1	25
GSR025	--	--	--	<1	10
GSR027	--	--	--	<1	20
GSR028	--	--	--	<1	35
GSR029	--	--	--	<1	20
GSR030	--	--	--	<1	30
GSR031	--	--	--	<1	20
GSR032	--	--	--	<1	15
GSR033	--	--	--	<1	15
GSR034	--	--	--	<1	25
GSR035	--	--	--	<1	15
GSR036	--	--	--	<1	10
GSR037	--	--	--	<1	15
GSR038	--	--	--	<1	25
GSR039	--	--	--	<1	20
GSR040	--	--	--	<1	30
GSR041	--	--	--	<1	30
GSR042	--	--	--	<1	30
GSR043	--	--	--	<1	25
GSR044	--	--	--	<1	25
GSR045	--	--	--	<1	45
GSR046	--	--	--	<1	25
GSR049	--	--	--	<1	30
GSR050	--	--	--	<1	30
GSR051	--	--	--	<1	25
GSR052	--	--	--	<1	30

Stream sediment

sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO
GSR053	463,360	794,530	1.00	.20	.10	.50	1,500	100	200	1.5	10
GSR054	463,320	793,900	.70	.15	.07	.30	200	70	200	1.5	7
GSR055	453,780	799,940	.70	.10	<.05	.30	300	50	150	1.0	5
GSR056	453,830	799,800	1.00	.10	<.05	.50	200	70	150	1.0	5
GSR057	454,020	799,900	1.00	.10	.05	.50	700	70	200	1.0	10
GSR058	454,100	799,740	1.00	.15	.05	.30	300	70	200	1.0	7
GSR059	454,200	799,400	.70	.10	.05	.30	100	70	150	1.0	5
GSR060	454,050	799,280	.70	.10	.05	.30	500	50	150	1.0	7
GSR061	454,070	798,980	.70	.10	<.05	.30	150	70	200	1.0	5
GSR062	454,320	798,940	.70	.10	.05	.20	500	50	150	1.0	7
GSR063	454,350	798,560	.70	.10	<.05	.30	300	50	200	1.0	7
GSR066	454,620	798,300	7.00	.50	.07	.30	>5,000	100	500	2.0	70
GSR067	454,730	798,360	1.00	.10	<.05	.30	500	70	150	1.0	7
GSR068	455,030	797,880	1.50	.15	.05	.30	300	100	300	1.0	7
GSR069	455,480	797,450	1.00	.10	.05	.30	700	70	200	1.5	7
GSR070	456,100	797,840	1.50	.20	.07	.30	1,000	100	300	1.5	10
GSR071	456,630	798,050	1.50	.20	.05	.30	200	100	300	1.0	7
GSR085	474,900	801,350	1.50	.15	.10	.30	700	15	300	1.0	10
GSR086	474,730	801,520	1.00	.15	.07	.30	700	15	300	2.0	10
GSR087	474,290	802,430	1.00	.07	.05	.30	300	20	200	2.0	10
GSR088	474,300	802,450	1.00	.07	<.05	.50	200	20	100	2.0	10
GSR089	473,590	802,000	1.00	.07	.05	.30	500	15	200	1.0	10
GSR090	473,210	802,020	1.50	.15	.05	.30	500	15	300	1.0	10
GSR091	473,090	801,960	1.00	.10	.05	.30	700	15	300	1.0	10
GSR092	472,450	802,110	1.00	.10	.05	.30	700	15	300	1.0	15
GSR093	472,540	801,940	1.50	.15	.05	.30	700	15	300	2.0	15
GSR094	472,060	802,080	.70	.07	.05	.30	300	15	150	1.0	10
GSR095	471,740	802,640	1.50	.15	.05	.70	700	15	300	2.0	15
GSR096	471,550	802,320	.70	.07	<.05	.30	700	10	150	2.0	10
GSR097	471,220	803,010	1.00	.10	.05	.50	300	15	300	1.0	5
GSR098	471,400	803,120	.30	.05	<.05	.50	200	<10	100	1.0	5
GSR099	468,150	803,230	1.50	.15	.20	.30	500	15	300	2.0	10
GSR100	468,180	803,050	1.00	.07	.07	.30	500	15	150	<1.0	10
GSR101	467,310	802,600	2.00	.15	.20	.50	1,000	20	500	2.0	20
GSR102	466,900	802,560	1.50	.15	.15	.30	300	20	300	1.0	15
GSR103	467,105	802,030	1.00	.10	.15	.30	700	15	300	1.0	5
GSR104	467,000	801,740	1.50	.15	.20	.50	700	15	300	1.0	15
GSR105	467,740	801,305	.70	.07	.07	.30	300	15	300	1.0	5
GSR106	467,890	801,230	1.00	.10	<.05	.30	300	15	200	2.0	10
GSR107	467,060	800,900	1.50	.10	.20	.30	700	20	300	2.0	10
GSR108	467,040	800,780	1.00	.15	.20	.30	500	15	200	1.0	10
GSR109	466,410	800,280	1.50	.15	.20	.30	700	15	300	2.0	15
GSR110	460,410	801,940	1.00	.15	.15	.30	700	15	300	2.0	10
GSR111	460,520	801,550	1.00	.15	.15	.30	700	30	300	2.0	10
GSR112	460,730	801,610	1.50	.15	.20	.50	700	20	500	2.0	15

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	S-CR	S-CU	S-LA	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR
GSR053	100	10	50	20	20	30	7	<100	50	20	500
GSR054	100	5	30	<20	10	15	5	100	50	20	500
GSR055	500	<5	50	<20	<5	10	N	<100	50	20	>1,000
GSR056	200	5	30	20	5	20	N	<100	50	20	1,000
GSR057	70	5	30	<20	10	30	5	<100	70	30	300
GSR058	100	5	50	<20	10	20	5	<100	50	20	500
GSR059	70	<5	30	<20	5	10	5	<100	50	20	700
GSR060	100	<5	30	<20	10	10	5	<100	50	20	500
GSR061	150	<5	30	20	5	20	<5	<100	50	20	700
GSR062	150	<5	20	<20	10	15	<5	<100	50	15	500
GSR063	70	5	20	<20	10	15	5	<100	50	20	700
GSR066	100	30	50	<20	100	100	15	100	100	50	300
GSR067	150	5	50	<20	7	20	<5	<100	50	20	700
GSR068	100	5	30	<20	10	30	5	<100	70	15	300
GSR069	70	<5	30	<20	10	15	5	<100	50	20	500
GSR070	100	7	30	<20	15	20	7	100	50	20	500
GSR071	100	7	20	<20	20	20	5	<100	70	20	500
GSR085	100	7	70	10	30	20	5	100	50	30	300
GSR086	150	7	70	10	20	10	5	100	70	30	700
GSR087	150	<5	70	10	15	10	5	100	70	50	1,000
GSR088	50	5	50	10	15	20	10	100	50	30	>1,000
GSR089	70	<5	70	10	15	10	5	100	50	20	500
GSR090	70	5	50	N	30	20	5	100	50	30	300
GSR091	200	7	70	N	30	20	5	100	50	30	300
GSR092	100	5	50	10	30	20	5	100	50	20	700
GSR093	150	7	50	10	30	20	10	100	70	30	500
GSR094	100	<5	20	N	15	10	<5	100	50	30	300
GSR095	70	7	50	10	15	30	10	100	70	50	1,000
GSR096	100	5	50	10	15	20	5	100	50	20	300
GSR097	70	5	70	N	10	30	5	100	70	50	500
GSR098	30	<5	70	N	<5	10	5	100	50	30	700
GSR099	150	7	70	N	10	30	10	100	70	50	700
GSR100	70	5	50	N	7	10	N	100	50	20	300
GSR101	100	15	100	10	30	30	15	100	70	70	500
GSR102	70	7	70	10	20	30	5	100	70	30	500
GSR103	50	5	50	N	10	30	<5	100	50	30	50
GSR104	100	7	100	10	30	30	10	100	70	70	500
GSR105	50	5	100	N	10	20	5	100	30	30	700
GSR106	200	5	50	N	15	20	5	100	50	50	1,000
GSR107	150	7	70	N	20	30	5	100	70	50	700
GSR108	150	5	150	N	20	30	5	100	50	30	700
GSR109	100	7	50	10	30	30	10	100	70	30	500
GSR110	150	7	100	10	30	20	10	100	70	50	300
GSR111	70	5	50	N	30	30	5	100	70	30	300
GSR112	70	7	100	10	50	30	15	100	70	70	700

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	S-AL%	S-NA%	S-LI	U E-SPEC	AA-ZN-P
GSR053	--	--	--	<1	30
GSR054	--	--	--	<1	20
GSR055	--	--	--	<1	10
GSR056	--	--	--	<1	15
GSR057	--	--	--	<1	20
GSR058	--	--	--	<1	15
GSR059	--	--	--	<1	10
GSR060	--	--	--	<1	15
GSR061	--	--	--	<1	15
GSR062	--	--	--	<1	15
GSR063	--	--	--	<1	15
GSR066	--	--	--	<1	100
GSR067	--	--	--	<1	15
GSR068	--	--	--	<1	25
GSR069	--	--	--	<1	15
GSR070	--	--	--	<1	35
GSR071	--	--	--	<1	25
GSR085	4	.30	N	<1	30
GSR086	3	.30	N	<1	25
GSR087	3	.15	N	<1	15
GSR088	3	.20	N	<1	25
GSR089	3	.20	N	<1	20
GSR090	4	.30	N	<1	25
GSR091	3	.20	N	<1	30
GSR092	3	.20	N	1	20
GSR093	5	.20	N	<1	25
GSR094	3	.15	N	<1	20
GSR095	5	.30	N	<1	25
GSR096	3	.20	N	<1	20
GSR097	4	.30	N	<1	20
GSR098	2	.20	N	<1	20
GSR099	5	.20	N	1	25
GSR100	4	.20	N	<1	15
GSR101	5	.30	N	1	30
GSR102	4	.30	N	<1	25
GSR103	3	.30	N	<1	20
GSR104	5	.30	N	<1	25
GSR105	3	.20	N	<1	15
GSR106	3	.20	N	<1	20
GSR107	3	.20	N	<1	30
GSR108	4	.20	N	<1	25
GSR109	4	.30	N	<1	30
GSR110	4	.50	N	<1	30
GSR111	4	.30	N	<1	30
GSR112	5	.30	N	<1	40

Table 1.--Analyses of stream-sediment and rock samples--Continued

			Stream sediment								
sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO
GSR113	460,690	801,150	1.50	.15	.15	.30	700	20	500	2.0	15
GSR114	461,130	801,120	1.50	.15	.15	.50	1,000	30	500	2.0	15
GSR115	461,020	800,920	1.50	.15	.20	.30	500	15	500	2.0	15
GSR116	461,430	800,830	1.50	.20	.20	.50	1,000	30	500	3.0	15
GSR117	461,420	800,450	1.50	.20	.70	.30	700	20	300	3.0	10
GSR118	462,350	799,510	1.00	.20	.20	.30	1,000	15	500	3.0	15
GSR119	462,180	798,480	1.50	.15	.05	.30	700	15	300	3.0	15
GSR120	462,110	798,330	.70	.10	<.05	.30	500	20	200	1.0	10
GSR121	461,330	798,410	1.00	.15	.05	.30	700	15	500	1.0	10
GSR122	461,380	798,480	.70	.10	.05	.30	500	50	200	1.0	10
GSR123	461,820	798,720	1.50	.20	.05	.30	700	15	500	2.0	10
GSR124	461,450	799,140	.70	.10	<.05	.30	700	15	300	1.0	10
GSR125	460,730	799,430	.50	.10	<.05	.30	300	15	150	1.0	5
GSR126	460,710	799,350	.50	.10	<.05	.30	700	15	200	2.0	10
GSR127	462,340	799,760	1.50	.15	.20	.50	700	15	500	2.0	15
GSR128	462,780	799,550	.70	.10	.10	.50	300	15	150	1.0	5
GSR129	463,070	799,150	1.50	.15	.10	.70	700	20	300	2.0	15
GSR130	463,340	799,030	1.00	.15	.07	.30	700	15	300	1.0	15
GSR131	463,370	798,580	1.50	.20	.15	.70	1,500	20	500	3.0	15
GSR132	462,850	798,160	1.00	.10	.07	.30	700	15	300	2.0	10
GSR133	462,990	798,090	1.00	.10	.10	.30	700	15	200	2.0	10
GSR134	463,140	797,590	.70	.10	<.05	.30	300	15	150	2.0	10
GSR135	463,470	797,560	.70	.10	.07	.50	700	15	150	2.0	15
GSR136	463,320	796,880	.70	.07	.10	.30	300	10	100	2.0	10
GSR137	463,680	796,650	.70	.07	.05	.30	200	15	70	1.0	5
GSR138	464,690	797,350	1.00	.10	.10	.30	700	10	150	1.0	10
GSR139	464,360	798,890	1.50	.15	.10	.50	700	15	200	2.0	15
GSR140	464,430	798,710	1.50	.15	2.00	.50	1,000	20	300	2.0	15
GSR141	464,340	798,800	1.00	.10	.10	.30	700	15	200	1.0	10
GSR142	464,790	799,190	1.00	.07	.07	.30	700	10	70	1.0	10
GSR143	464,130	799,610	1.00	.15	.15	.30	500	10	150	2.0	10
GSR144	453,780	796,390	1.00	.15	.05	.50	300	15	200	1.0	10
HSR001	457,980	802,900	1.50	.15	.10	.30	700	15	300	2.0	10
HSR002	457,920	802,800	.70	.05	.05	.20	300	15	20	1.0	5
HSR003	457,700	802,150	1.00	.15	.05	.50	700	15	150	2.0	10
HSR004	457,740	801,900	1.50	.15	.20	.50	1,000	15	300	2.0	10
HSR005	457,250	802,050	1.00	.10	<.05	.30	500	15	150	1.0	10
HSR006	457,520	801,600	.70	.07	<.05	.20	300	15	150	1.0	5
HSR007	457,230	801,250	.70	.07	.07	.30	700	30	150	1.0	5
HSR008	457,350	800,940	1.00	.15	.05	.50	700	15	200	2.0	10
SSR001A	466,860	807,000	1.50	.20	.50	.30	1,000	20	300	3.0	15
SSR002	467,160	807,000	1.50	.15	.20	.30	700	15	300	2.0	15
SSR003	467,860	807,190	1.50	.20	.30	.30	700	15	200	3.0	10
SSR004	467,870	806,980	3.00	.30	.50	.30	700	15	300	3.0	15
SSR005	466,940	806,440	1.50	.20	.15	.30	1,000	30	300	1.0	15

Table 1.--Analyses of stream-sediment and rock samples--Continued

	Stream sediment										
sample	S-CR	S-CU	S-LA	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR
GSR113	200	7	100	N	30	30	10	100	70	50	300
GSR114	150	7	100	10	30	30	10	100	70	70	1,000
GSR115	150	7	100	10	30	30	10	100	70	70	30
GSR116	70	10	100	10	30	30	10	100	70	70	100
GSR117	150	7	100	10	30	30	10	100	70	50	>1,000
GSR118	150	10	100	10	50	30	10	100	70	70	700
GSR119	100	7	70	10	30	30	10	100	70	30	500
GSR120	70	<5	50	10	20	20	5	100	70	30	300
GSR121	100	7	70	10	20	30	5	100	50	30	300
GSR122	100	<5	50	10	20	30	5	100	50	50	700
GSR123	150	5	150	N	30	30	10	100	70	50	300
GSR124	200	5	50	N	20	20	5	10	50	30	300
GSR125	100	<5	20	10	10	20	5	100	30	20	1,000
GSR126	50	5	100	N	30	20	5	100	50	20	300
GSR127	70	7	100	N	30	30	10	100	70	70	300
GSR128	1,000	<5	150	N	15	20	10	100	50	50	>1,000
GSR129	100	10	70	10	30	30	10	100	70	70	700
GSR130	150	7	70	N	30	30	5	100	50	30	300
GSR131	100	10	70	20	30	30	15	100	70	50	700
GSR132	50	5	150	10	30	10	5	100	70	30	300
GSR133	30	5	50	10	20	10	5	100	70	30	500
GSR134	150	5	50	10	20	10	5	100	50	20	700
GSR135	70	5	50	10	30	20	5	100	70	20	700
GSR136	30	5	20	10	20	20	5	100	50	20	300
GSR137	70	<5	N	10	15	10	5	100	30	20	1,000
GSR138	70	5	50	10	20	10	5	100	50	20	300
GSR139	200	10	70	10	30	10	10	100	70	50	1,000
GSR140	150	15	100	10	30	30	10	100	100	70	300
GSR141	30	7	70	N	30	10	5	100	50	20	200
GSR142	70	5	N	N	15	10	5	100	50	20	500
GSR143	200	5	20	N	15	10	10	100	50	30	1,000
GSR144	70	5	50	10	20	20	10	100	70	50	300
HSR001	50	7	50	N	30	20	5	100	50	30	200
HSR002	150	<5	N	N	15	10	N	100	30	N	200
HSR003	70	7	50	10	20	30	10	100	70	30	700
HSR004	70	7	50	10	30	20	10	100	70	30	500
HSR005	100	5	50	N	20	20	5	100	50	30	500
HSR006	200	<5	20	N	15	20	N	100	30	10	300
HSR007	30	<5	20	N	20	20	5	100	50	20	100
HSR008	150	5	50	10	20	30	10	100	70	30	700
SSR001A	70	15	70	10	50	30	15	100	70	30	200
SSR002	100	7	70	10	30	30	10	100	50	30	500
SSR003	50	7	70	10	30	20	15	100	70	30	300
SSR004	100	15	70	10	70	30	15	100	150	70	150
SSR005	70	10	50	10	30	30	5	100	70	30	500

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	S-AL%	S-NA%	S-LI	U E-SPEC	AA-ZN-P
GSR113	5	.30	N	1	35
GSR114	5	.30	N	<1	30
GSR115	5	.50	N	<1	30
GSR116	5	.30	N	<1	30
GSR117	5	.30	N	<1	30
GSR118	5	.30	N	<1	40
GSR119	5	.30	N	<1	30
GSR120	3	.20	N	<1	20
GSR121	5	.50	N	<1	35
GSR122	3	.20	N	<1	15
GSR123	5	.30	N	<1	25
GSR124	3	.30	N	<1	25
GSR125	3	.20	N	<1	20
GSR126	3	.20	N	<1	25
GSR127	4	.30	N	<1	35
GSR128	3	.20	N	<1	25
GSR129	4	.50	N	1	35
GSR130	5	.50	N	<1	25
GSR131	7	.30	N	<1	30
GSR132	3	.30	N	<1	40
GSR133	3	.20	N	1	25
GSR134	3	.20	N	<1	20
GSR135	4	.30	N	<1	30
GSR136	3	.20	N	<1	25
GSR137	3	.20	N	<1	15
GSR138	3	.20	N	<1	30
GSR139	5	.30	N	<1	35
GSR140	6	.30	N	<1	40
GSR141	4	.20	N	<1	30
GSR142	3	.20	N	<1	20
GSR143	4	.30	N	<1	30
GSR144	5	.30	N	<1	25
HSR001	4	.30	N	<1	30
HSR002	2	.15	N	<1	15
HSR003	4	.30	N	1	25
HSR004	5	.30	N	<1	40
HSR005	3	.30	N	<1	20
HSR006	3	.30	N	1	15
HSR007	3	.15	N	<1	25
HSR008	5	.50	N	<1	25
SSR001A	4	.30	N	<1	50
SSR002	5	.30	N	<1	35
SSR003	4	.30	N	<1	40
SSR004	5	.30	N	2	110
SSR005	4	.20	N	<1	25

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO
SSR006	467,680	805,520	1.50	.20	.20	.30	1,000	15	500	2.0	15
SSR007A	466,850	805,520	1.00	.10	.07	.30	500	15	100	1.0	10
SSR008	467,100	804,800	1.50	.20	.20	.30	300	20	150	2.0	10
SSR009	467,320	804,450	1.50	.15	.07	.30	700	20	150	1.0	10
SSR010	467,840	804,420	2.00	.20	.30	.30	300	20	200	1.0	10
SSR011	467,200	803,180	1.50	.10	.20	.30	500	<10	150	3.0	10
SSR012	460,500	805,850	.50	.07	<.05	.20	200	15	100	1.0	5
SSR013	460,600	806,120	2.00	.15	.07	.30	700	15	300	3.0	20
SSR014	460,370	806,080	1.50	.15	.07	.50	700	20	300	2.0	20
SSR017	459,810	805,080	1.00	.10	.05	.30	700	15	200	2.0	5
SSR018	459,300	805,080	1.00	.10	.10	.30	500	15	150	2.0	5
SSR019	458,860	804,770	.70	.10	.05	.30	700	10	150	1.0	10
SSR020	458,810	804,330	1.00	.10	.05	.20	300	<10	150	1.0	10
SSR021	458,510	804,500	1.00	.10	.07	.30	300	15	150	1.0	5
SSR022A	458,220	804,230	15.00	.10	.07	.20	500	<10	300	1.0	10
SSR023	458,140	803,860	1.50	.20	.20	.30	700	15	200	2.0	15
SSR024	460,950	803,580	1.00	.10	<.05	.30	300	10	200	1.0	10
SSR025A	461,080	803,560	1.50	.15	.07	.30	700	15	300	1.0	15
SSR026	461,160	803,260	1.50	.20	.07	.50	1,500	15	500	2.0	20
SSR027	461,400	803,210	1.50	.15	.15	.70	1,500	20	500	3.0	15
SSR028	461,600	803,480	1.00	.15	.10	.30	500	15	200	2.0	10
SSR029	461,880	803,380	1.00	.15	.05	.30	500	15	300	1.0	10
SSR030	462,230	802,900	1.00	.15	.07	.30	700	15	300	1.0	15
SSR031	462,030	802,710	1.00	.15	.07	.30	1,000	15	300	1.0	15
SSR032	462,190	802,330	1.00	.15	.05	.30	700	15	300	1.0	15
SSR033	462,680	802,360	1.00	.15	.07	.30	700	30	300	1.0	10
SSR034	462,420	801,400	1.50	.15	.20	.30	700	20	300	3.0	15
SSR035	463,000	801,220	1.50	.15	.20	.50	1,000	15	300	3.0	10
SSR036	463,120	801,110	1.50	.10	.07	.30	700	20	300	1.0	15
SSR037	463,000	800,480	1.50	.15	.15	.30	1,000	15	300	2.0	20
SSR038	454,250	796,180	.50	.07	.05	.30	700	10	150	1.0	10
SSR040	454,680	797,100	.20	.02	<.05	.30	50	<10	50	<1.0	5
SSR041	454,200	797,180	.30	.07	<.05	.30	150	N	70	<1.0	5
SSR043	455,660	797,030	.15	.03	<.05	.20	50	10	50	<1.0	5
SSR044	455,700	797,190	.30	.07	<.05	.20	150	<10	150	<1.0	5
SSR045	456,180	797,230	1.00	.15	.05	.30	500	15	300	1.0	15
SSR046	456,300	797,320	.70	.10	.05	.30	300	30	200	<1.0	5
SSR047	455,760	796,980	.20	.03	<.05	.30	50	<10	20	1.0	N
SSR049	455,830	796,460	1.50	.20	.05	.30	500	10	300	1.0	20
SSR050	455,800	796,120	.50	.07	<.05	.20	300	<10	150	1.0	10
SSR051	455,390	795,890	.70	.10	<.05	.30	500	15	200	1.0	10
SSR052	455,500	797,580	.20	.03	N	.20	150	N	70	<1.0	5
SSR053	455,400	795,630	.15	.02	N	.20	20	<10	30	<1.0	5
SSR054	455,040	795,190	.20	.05	<.05	.15	100	<10	100	<1.0	5
SSR055	455,100	795,120	.15	.05	<.05	.20	30	15	50	1.0	N

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	S-CR	S-CU	S-LA	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR
SSR006	150	10	100	10	50	30	15	100	100	70	500
SSR007A	50	5	20	N	15	20	5	<100	50	20	200
SSR008	100	7	70	10	30	20	10	<100	70	30	500
SSR009	50	5	50	10	20	20	5	<100	50	30	200
SSR010	150	7	50	N	30	20	10	100	70	30	700
SSR011	50	5	20	10	15	20	10	<100	70	30	1,000
SSR012	150	<5	20	N	15	10	N	100	30	10	500
SSR013	70	7	20	N	30	30	10	100	70	30	200
SSR014	100	7	70	10	50	30	15	100	70	70	1,000
SSR017	30	5	20	10	20	10	5	100	50	10	300
SSR018	100	5	50	10	20	20	N	100	50	20	200
SSR019	70	5	50	N	20	10	5	100	50	20	300
SSR020	70	<5	20	10	20	10	5	100	30	10	150
SSR021	30	<5	N	N	15	20	5	100	30	20	200
SSR022A	50	5	50	N	20	20	5	100	50	30	200
SSR023	150	7	50	10	30	30	10	100	100	30	500
SSR024	200	5	50	10	20	20	5	100	50	30	300
SSR025A	100	5	70	10	30	20	10	100	70	30	300
SSR026	100	10	70	10	30	30	10	100	70	50	500
SSR027	70	7	70	10	30	30	15	100	100	70	700
SSR028	150	5	100	10	30	20	10	100	70	30	100
SSR029	70	5	50	10	30	20	5	100	70	20	300
SSR030	70	7	70	N	30	30	5	100	70	30	300
SSR031	100	10	70	N	30	30	10	100	70	30	300
SSR032	100	5	50	10	30	20	10	100	70	30	200
SSR033	70	5	50	10	30	20	5	100	50	20	300
SSR034	100	7	50	10	30	30	10	100	70	30	700
SSR035	70	7	70	10	30	20	10	100	70	50	700
SSR036	70	5	50	10	30	20	5	100	70	20	700
SSR037	70	5	50	N	30	20	N	100	50	30	300
SSR038	150	<5	20	N	20	20	N	100	50	20	300
SSR040	150	N	150	N	10	10	N	<100	20	20	700
SSR041	100	N	N	N	15	10	N	<100	15	N	200
SSR043	100	N	70	N	10	10	N	<100	15	10	150
SSR044	150	N	N	N	10	10	N	<100	20	30	700
SSR045	200	5	100	N	30	30	5	100	50	30	500
SSR046	50	<5	20	N	20	20	5	100	30	10	300
SSR047	100	N	N	N	5	10	5	<100	20	10	1,000
SSR049	150	5	70	N	30	30	5	<100	70	30	300
SSR050	30	<5	20	N	15	10	5	<100	30	20	200
SSR051	50	<5	20	N	15	10	5	<100	50	20	300
SSR052	30	N	20	N	10	10	N	<100	15	10	150
SSR053	100	N	20	N	10	10	N	<100	15	10	200
SSR054	150	N	N	10	5	10	N	<100	20	N	500
SSR055	100	N	N	N	5	20	N	<100	20	70	700

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	S-AL%	S-NA%	S-LI	U E-SPEC	AA-ZN-P
SSR006	6	.30	N	<1	40
SSR007A	3	.20	N	<1	10
SSR008	4	.20	N	<1	37
SSR009	4	.20	N	<1	20
SSR010	6	.30	N	<1	35
SSR011	4	.20	N	<1	20
SSR012	3	.20	N	<1	15
SSR013	6	.30	N	<1	30
SSR014	6	.30	N	<1	30
SSR017	3	.30	N	<1	25
SSR018	3	.20	N	<1	10
SSR019	4	.30	N	<1	20
SSR020	3	.20	N	<1	25
SSR021	3	.20	N	2	15
SSR022A	3	.30	N	<1	20
SSR023	5	.30	N	<1	35
SSR024	4	.30	N	<1	20
SSR025A	5	.20	N	<1	35
SSR026	6	.50	N	<1	40
SSR027	6	.50	N	1	35
SSR028	4	.30	N	<1	20
SSR029	4	.30	N	<1	25
SSR030	4	.30	N	<1	30
SSR031	5	.50	N	<1	35
SSR032	5	.30	N	<1	20
SSR033	4	.30	N	<1	25
SSR034	5	.30	N	1	30
SSR035	4	.30	N	2	40
SSR036	3	.20	N	<1	20
SSR037	5	.20	N	<1	25
SSR038	3	.15	N	<1	15
SSR040	2	N	N	<1	10
SSR041	2	N	N	<1	10
SSR043	2	N	N	<1	10
SSR044	3	.20	N	<1	15
SSR045	5	.30	N	<1	35
SSR046	3	.15	N	<1	20
SSR047	2	N	N	<1	10
SSR049	5	.30	N	<1	25
SSR050	3	.20	N	1	15
SSR051	3	.15	N	<1	10
SSR052	2	.15	N	<1	10
SSR053	2	N	N	<1	5
SSR054	2	.15	N	<1	5
SSR055	2	.15	N	<1	5

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO
SSR056	454,910	801,630	.70	.15	.05	.20	300	15	150	1.0	5
SSR057	454,950	801,770	1.00	.10	.07	.30	300	20	300	1.0	10
SSR058	455,300	801,470	.70	.10	.05	.30	500	15	200	1.0	10
SSR059	455,390	801,630	1.00	.10	.05	.30	300	15	300	1.0	15
SSR060	455,950	801,580	1.00	.10	.07	.30	700	15	300	1.0	15
SSR061	456,010	801,310	1.00	.15	.07	.30	700	10	300	2.0	15
SSR062	456,340	801,090	1.00	.10	.07	.30	700	10	300	2.0	10
SSR063	456,370	801,250	1.50	.15	.10	.30	700	15	500	2.0	15
TSR002	470,060	806,040	1.50	.15	.20	.30	300	15	500	2.0	10
TSR003	470,000	806,160	1.00	.15	.10	.30	700	15	200	1.0	10
TSR005	470,000	805,240	1.00	.15	.10	.30	300	10	200	2.0	10
TSR006	469,950	805,160	1.50	.15	.20	.50	1,000	15	300	2.0	15
TSR007	468,900	805,880	1.50	.15	.30	.30	700	15	300	1.0	15
TSR009	469,160	806,120	2.00	.50	.30	.30	700	20	300	2.0	20
TSR010	468,740	805,020	1.50	.20	.50	.30	700	20	300	2.0	15
TSR011	468,960	804,700	1.00	.10	.10	.20	700	10	300	1.0	10
TSR012	469,100	804,300	1.50	.15	.15	.20	500	10	200	2.0	10
TSR013	469,030	803,700	1.50	.15	.10	.30	200	10	150	1.0	10
TSR014B	455,220	804,950	.50	.10	.05	.30	200	20	200	1.0	5
TSR015	455,340	804,810	.50	.10	.07	.50	500	10	200	1.0	5
TSR017	455,640	805,000	1.50	.20	.10	.50	700	15	300	3.0	10
TSR018	455,970	804,630	1.00	.10	.05	.30	300	15	200	1.0	5
TSR020	456,290	804,750	1.50	.15	.07	.30	700	15	300	1.0	10
TSR021	456,990	804,690	1.50	.15	.07	.30	700	15	300	1.0	10
TSR022	457,290	804,500	3.00	.30	.15	.50	700	20	700	2.0	15
TSR023	457,350	803,470	1.00	.10	<.05	.30	500	10	200	1.0	10
TSR024	457,640	803,130	1.50	.20	.15	.70	1,500	50	700	3.0	15
TSR025	458,290	802,950	2.00	.20	.10	.50	1,000	15	500	3.0	20
TSR027	458,590	803,070	1.50	.15	.10	.50	700	15	500	2.0	15
TSR028	459,210	802,910	1.50	.20	.05	.50	300	15	300	1.0	15
TSR029	458,900	802,760	1.00	.10	<.05	.20	300	15	150	1.0	5
TSR034	453,180	802,420	1.50	.15	.07	.50	700	50	300	2.0	15
TSR035	453,250	802,540	1.50	.15	.07	.30	500	15	300	2.0	10
TSR036	453,420	802,230	1.50	.15	.05	.30	700	15	300	2.0	10
TSR037	453,770	802,390	1.00	.15	.05	.30	300	10	300	1.0	10
TSR038	453,860	802,380	1.00	.15	.05	.30	500	10	200	1.0	10
TSR039	453,950	802,140	1.00	.15	.07	.50	500	10	300	2.0	10
TSR040	454,270	802,320	1.50	.15	.07	.30	700	15	500	2.0	10
TSR041	454,510	801,990	1.50	.15	.05	.30	700	15	300	2.0	15
TSR043	454,930	802,670	1.50	.20	.10	.50	1,000	15	500	3.0	15
TSR044	454,620	802,720	1.50	.15	.07	.50	1,000	15	500	2.0	15
TSR045	454,670	803,250	1.50	.15	.10	.50	1,000	15	500	1.0	15
TSR046	454,490	803,200	1.50	.20	.07	.50	1,000	10	300	2.0	15
TSR047	454,530	803,560	1.00	.15	.05	.30	700	15	300	1.0	10
TSR048	454,020	804,200	1.00	.15	.10	.20	700	15	300	2.0	10

Stream sediment

sample	S-CR	S-CU	S-LA	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR
SSR056	50	<5	N	N	30	20	N	<100	30	10	150
SSR057	500	5	50	10	30	20	5	<100	50	20	300
SSR058	50	5	50	10	30	30	5	<100	50	20	500
SSR059	70	5	50	10	20	20	5	<100	50	20	300
SSR060	70	7	50	N	30	30	5	100	50	30	200
SSR061	50	5	70	10	30	20	10	100	70	30	500
SSR062	50	5	100	N	30	10	5	100	70	30	300
SSR063	70	7	50	N	50	30	5	100	70	30	300
TSR002	100	5	150	N	30	10	15	100	70	70	150
TSR003	150	5	50	10	30	20	5	<100	70	20	200
TSR005	100	5	70	N	30	10	5	100	70	20	200
TSR006	100	15	70	10	30	30	10	100	100	70	500
TSR007	200	7	70	N	30	30	5	100	70	30	300
TSR009	150	15	100	N	70	30	15	100	100	50	200
TSR010	100	10	100	N	50	30	10	100	70	50	700
TSR011	150	7	50	N	30	20	5	100	50	20	500
TSR012	100	7	50	N	30	20	5	100	50	30	500
TSR013	200	5	50	10	20	20	10	100	70	70	>1,000
TSR014B	50	5	70	10	5	10	5	<100	30	30	700
TSR015	50	5	50	10	20	10	5	<100	50	20	300
TSR017	70	7	70	10	30	30	10	100	70	70	>1,000
TSR018	150	5	70	10	30	20	N	100	30	30	700
TSR020	50	7	70	10	30	10	10	100	70	30	500
TSR021	100	7	50	10	30	30	10	100	70	30	500
TSR022	100	15	100	10	50	30	20	100	100	70	300
TSR023	70	5	20	N	30	10	5	100	50	20	300
TSR024	200	7	70	10	50	30	15	100	70	70	700
TSR025	150	10	100	10	30	30	15	100	70	70	500
TSR027	150	7	100	10	30	30	10	100	70	50	300
TSR028	150	7	70	10	30	30	10	100	70	50	700
TSR029	200	5	20	N	15	10	N	100	30	10	300
TSR034	200	15	70	10	30	20	10	100	70	50	700
TSR035	70	7	50	10	30	30	10	100	70	50	1,000
TSR036	150	7	50	10	30	20	5	100	70	30	500
TSR037	100	5	50	N	30	20	5	100	50	20	500
TSR038	50	5	50	N	20	20	5	100	50	20	500
TSR039	300	5	50	10	15	20	10	100	70	50	>1,000
TSR040	100	7	70	10	30	30	10	100	70	70	300
TSR041	70	5	50	10	30	20	10	100	70	30	500
TSR043	100	7	100	10	30	30	15	100	70	70	300
TSR044	100	7	100	10	30	30	10	100	70	50	500
TSR045	200	7	100	10	30	30	10	100	70	50	300
TSR046	70	5	70	10	30	30	10	100	70	50	700
TSR047	70	5	50	N	30	10	5	<100	70	20	700
TSR048	70	5	50	N	30	10	5	<100	50	20	500

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	S-AL%	S-NA%	S-LI	U E-SPEC	AA-ZN-P
SSR056	4	.30	N	<1	15
SSR057	4	.30	N	<1	15
SSR058	5	.30	N	<1	20
SSR059	4	.30	N	<1	25
SSR060	4	.30	N	<1	30
SSR061	5	.30	N	<1	25
SSR062	4	.30	N	<1	40
SSR063	6	.30	N	<1	30
TSR002	5	.30	N	<1	30
TSR003	4	.20	N	<1	20
TSR005	4	.20	N	<1	35
TSR006	4	.30	N	<1	35
TSR007	4	.30	N	<1	35
TSR009	6	.30	N	2	55
TSR010	5	.30	N	<1	45
TSR011	3	.30	N	<1	30
TSR012	3	.20	N	<1	25
TSR013	3	.20	N	<1	20
TSR014B	3	.30	N	<1	15
TSR015	3	.30	N	<1	15
TSR017	6	.50	N	<1	30
TSR018	3	.30	N	<1	15
TSR020	4	.30	N	<1	30
TSR021	5	.30	N	<1	20
TSR022	7	.70	N	<1	45
TSR023	3	.20	N	<1	25
TSR024	7	.30	N	<1	30
TSR025	6	.30	N	<1	30
TSR027	5	.30	N	<1	35
TSR028	6	.30	N	<1	25
TSR029	3	.20	N	<1	15
TSR034	5	.30	N	<1	20
TSR035	4	.30	N	<1	20
TSR036	3	.30	N	<1	20
TSR037	4	.30	N	1	20
TSR038	3	.30	N	<1	20
TSR039	4	.30	N	<1	25
TSR040	5	.50	N	<1	25
TSR041	4	.30	N	2	25
TSR043	5	.50	N	<1	45
TSR044	5	.50	N	<1	35
TSR045	5	.50	N	<1	45
TSR046	6	.50	N	<1	35
TSR047	4	.50	N	<1	40
TSR048	4	.30	N	<1	30

Stream sediment

sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO
TSR049	454,090	804,290	.50	.10	.05	.30	500	10	100	1.0	10
TSR050	456,620	798,000	1.00	.15	<.05	.30	300	15	150	1.0	10
TSR052	457,120	797,280	1.00	.15	<.05	.30	700	15	300	1.0	15
TSR053	457,120	796,930	.70	.10	<.05	.20	300	15	100	1.0	5
TSR055	457,180	796,690	1.00	.10	<.05	.30	500	15	200	1.0	10
TSR056	457,610	796,720	.70	.15	.07	.50	150	15	300	2.0	5
TSR057	457,870	797,050	.70	.07	<.05	.30	700	15	150	1.0	5
TSR058	458,130	796,930	.70	.07	<.05	.30	500	10	150	1.0	5
TSR059	458,370	796,800	1.50	.15	.07	.30	700	15	300	2.0	10
TSR060	458,380	797,580	.70	.10	<.05	.30	300	15	150	1.0	10
TSR061	459,390	797,100	1.50	.15	.07	.30	700	15	300	2.0	15
TSR062	459,840	797,100	.70	.07	.07	.20	500	10	200	1.0	10
TSR063	460,000	796,880	1.50	.15	.07	.30	700	15	300	1.0	15
TSR068	461,270	797,160	.70	.07	<.05	.30	200	10	150	1.0	5
TSR069	461,270	797,040	1.00	.07	<.05	.20	200	15	100	1.0	5
TSR070	461,690	796,730	.70	.07	.05	.20	300	10	150	1.0	5
TSR071	462,130	796,100	1.00	.07	.05	.20	700	15	150	1.0	15
WSR001	466,650	797,580	1.50	.15	.07	.30	500	15	300	2.0	10
WSR002	466,770	797,290	1.50	.15	.07	.30	500	15	300	2.0	15
WSR003	467,430	797,340	1.00	.15	.07	.30	700	15	200	1.0	15
WSR004	467,210	797,590	.70	.07	.05	.20	300	15	150	1.0	5
WSR005	466,030	797,490	1.50	.15	.15	.30	1,000	15	300	2.0	20
WSR006	466,110	797,830	1.50	.15	.20	.30	700	15	300	2.0	20
WSR009	465,370	798,720	1.50	.30	.30	.30	700	15	200	2.0	15
WSR010	465,250	799,710	1.50	.15	.20	.50	700	15	300	2.0	15
WSR011	466,010	799,590	1.00	.10	.10	.50	500	15	100	1.0	10
WSR012	466,310	799,000	1.00	.10	.07	.30	700	20	150	1.0	15
WSR013	463,040	794,530	1.50	.10	.05	.30	700	15	300	1.0	15
WSR014	462,650	793,680	.30	.05	<.05	.30	150	10	50	1.0	N
WSR017	465,050	795,830	1.50	.10	<.05	.30	500	15	200	1.0	15
WSR018	465,100	795,740	1.00	.15	.05	.30	500	15	300	1.0	10
WSR019	465,350	795,900	.70	.07	<.05	.20	300	15	150	1.0	15
WSR020	465,750	796,080	.70	.10	<.05	.30	200	15	150	2.0	10
WSR021	466,110	796,080	1.00	.10	<.05	.30	500	15	150	2.0	10
WSR022	466,270	795,930	1.00	.15	.05	.30	300	10	150	1.0	10
WSR023	461,290	800,260	1.50	.15	.15	.30	700	20	200	3.0	10
WSR024	461,920	800,220	1.50	.15	.15	.30	500	15	200	2.0	10
WSR025	456,750	800,150	1.50	.15	.10	.30	1,000	15	500	2.0	15
WSR026	456,800	800,620	1.50	.15	.07	.30	300	15	300	1.0	10
WSR027	456,920	800,580	1.50	.20	.15	.50	700	15	300	2.0	10
WSR028	456,910	798,370	.70	.10	.07	.30	300	15	200	1.0	5
WSR030	456,750	798,620	1.50	.15	.10	.30	1,000	15	500	2.0	15
WSR031	456,730	798,900	1.50	.15	.05	.30	300	20	300	1.0	10
WSR032	456,860	799,520	.70	.15	.07	.20	500	15	150	1.0	5
WSR033	456,480	800,000	15.00	.15	.15	.30	700	15	200	1.0	10
WSR034	456,440	799,860	1.50	.15	.15	.50	500	20	300	2.0	10

Stream sediment

sample	S-CR	S-CU	S-LA	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR
TSR049	100	5	100	N	15	10	5	<100	30	20	700
TSR050	30	5	50	10	20	20	5	<100	70	30	700
TSR052	150	7	70	10	30	10	5	<100	70	30	300
TSR053	30	<5	20	N	15	10	N	<100	30	10	300
TSR055	50	5	20	10	20	20	5	<100	50	20	300
TSR056	100	5	70	10	30	20	5	<100	70	30	700
TSR057	50	5	70	10	20	10	5	<100	50	30	500
TSR058	50	<5	50	10	15	10	5	<100	30	30	500
TSR059	70	7	50	10	30	20	5	<100	70	20	300
TSR060	70	5	20	10	20	20	5	<100	50	20	300
TSR061	70	7	50	10	30	30	5	<100	70	30	300
TSR062	50	5	20	N	30	20	N	<100	30	20	200
TSR063	100	7	50	N	30	30	5	<100	30	30	300
TSR068	100	<5	20	10	20	10	5	<100	50	20	500
TSR069	150	5	50	N	15	10	5	<100	50	20	200
TSR070	50	5	20	N	15	10	5	<100	30	20	200
TSR071	50	5	50	N	20	10	5	<100	30	20	150
WSR001	100	10	70	10	30	20	5	100	50	30	500
WSR002	150	7	100	10	30	20	10	100	70	50	1,000
WSR003	150	5	70	10	30	10	5	100	50	70	300
WSR004	100	<5	50	N	10	10	N	100	30	20	700
WSR005	100	10	100	10	50	30	10	100	70	70	300
WSR006	100	10	70	10	30	20	10	100	70	30	200
WSR009	100	15	100	10	30	30	10	100	70	70	700
WSR010	150	7	70	10	30	20	10	<100	70	50	300
WSR011	300	5	50	10	30	10	5	N	50	20	700
WSR012	150	5	70	10	30	20	5	N	50	20	500
WSR013	100	7	50	N	30	20	5	<100	50	20	200
WSR014	70	<5	N	N	10	20	N	N	20	10	500
WSR017	100	7	70	N	30	20	5	100	70	30	300
WSR018	70	5	70	N	30	20	5	100	50	20	200
WSR019	150	7	50	10	15	20	5	100	50	30	1,000
WSR020	70	5	20	N	15	10	5	<100	50	20	500
WSR021	100	5	20	10	20	10	5	<100	70	20	300
WSR022	70	5	20	N	20	20	5	<100	30	30	200
WSR023	100	5	70	N	30	10	10	<100	70	70	700
WSR024	150	7	50	10	30	20	10	<100	70	100	1,000
WSR025	200	10	100	N	30	20	10	100	70	70	500
WSR026	150	5	70	10	30	20	5	100	50	30	500
WSR027	150	15	70	10	30	30	10	100	70	30	700
WSR028	70	5	50	10	20	10	5	<100	30	20	300
WSR030	100	10	50	10	30	10	10	100	70	30	200
WSR031	70	7	150	N	30	10	5	100	70	50	700
WSR032	50	5	70	10	15	10	5	<100	30	20	150
WSR033	70	5	70	10	30	10	5	<100	70	30	300
WSR034	100	7	70	10	30	20	10	100	70	50	1,000

Table 1.--Analyses of stream-sediment and rock samples--Continued

Stream sediment

sample	S-AL%	S-NA%	S-LI	U E-SPEC	AA-ZN-P
TSR049	4	.20	N	<1	15
TSR050	4	.30	N	<1	25
TSR052	5	.30	N	<1	30
TSR053	4	.20	N	<1	20
TSR055	4	.30	N	<1	20
TSR056	5	.30	N	<1	30
TSR057	3	.30	N	<1	20
TSR058	3	.30	N	<1	25
TSR059	4	.30	N	<1	50
TSR060	4	.30	N	1	25
TSR061	5	.50	N	<1	35
TSR062	4	.30	N	<1	25
TSR063	6	.50	N	<1	30
TSR068	3	.20	N	<1	20
TSR069	3	.20	N	<1	15
TSR070	3	.20	N	<1	15
TSR071	3	.20	N	<1	20
WSR001	4	.30	N	<1	25
WSR002	4	.30	N	<1	35
WSR003	4	.30	N	<1	20
WSR004	2	.20	N	<1	15
WSR005	5	.30	N	<1	30
WSR006	5	.30	N	<1	35
WSR009	5	.30	N	<1	55
WSR010	5	.30	N	<1	25
WSR011	3	.20	N	<1	25
WSR012	3	.20	N	<1	25
WSR013	3	.30	N	<1	30
WSR014	2	.15	N	<1	10
WSR017	4	.30	N	<1	15
WSR018	4	.30	N	<1	30
WSR019	4	.30	N	<1	10
WSR020	3	.30	N	<1	25
WSR021	4	.30	N	<1	25
WSR022	4	.30	N	<1	30
WSR023	5	.30	N	<1	45
WSR024	5	.30	N	<1	30
WSR025	6	.50	N	<1	40
WSR026	5	.30	N	2	25
WSR027	6	.30	N	<1	25
WSR028	3	.30	N	<1	25
WSR030	4	.30	N	<1	35
WSR031	3	.20	N	<1	20
WSR032	3	.30	N	<1	25
WSR033	4	.30	N	<1	30
WSR034	5	.30	N	<1	25

Table 1.--Analyses of stream-sediment and rock samples--Continued

Rock

sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO
GSR001	463,300	793,400	3.00	.03	<.05	.05	300	10	150	1.0	5
GSR002	463,400	793,590	.50	.05	N	.10	100	15	150	<1.0	5
GSR003	463,030	793,520	7.00	1.00	.50	.50	1,500	150	700	2.0	20
GSR024	456,610	799,860	.30	1.00	>20.00	.01	700	N	500	N	N
GSR026	458,090	793,640	.50	.10	.30	.05	50	30	300	<1.0	N
GSR047	463,250	795,730	3.00	.05	.50	.07	>5,000	30	700	1.5	50
GSR048	463,250	795,730	10.00	.02	.05	.02	>5,000	N	200	1.0	20
GSR064	454,580	798,400	7.00	1.00	.10	.50	700	200	500	5.0	20
GSR065	454,580	798,400	5.00	.05	<.05	.10	1,500	20	200	1.5	15
GSR072	464,100	796,290	.50	.05	<.05	.15	100	50	100	1.0	N
GSR073	463,980	796,530	1.50	.20	<.05	.50	50	100	300	2.0	5
GSR074	463,760	796,370	1.00	.15	.05	.30	200	50	300	1.0	5
GSR075	460,880	797,760	.70	.10	<.05	.50	20	70	200	1.0	N
GSR076	459,780	799,600	1.50	.20	<.05	.50	30	70	300	1.5	N
GSR077	457,160	800,380	7.00	.50	<.05	.50	150	100	500	2.0	7
GSR078	457,190	800,280	1.00	.10	.05	.15	700	70	200	1.0	20
GSR079	457,100	800,180	1.50	.15	.07	.20	500	50	200	1.0	7
GSR080	455,630	799,670	.70	.10	.05	.15	100	30	200	1.0	N
GSR081	452,300	800,060	7.00	.02	.05	.10	>5,000	20	1,000	1.5	50
GSR082	453,590	796,380	1.50	.07	.05	.15	700	30	200	1.5	20
GSR083	454,220	794,920	15.00	.03	N	.10	5,000	20	300	2.0	10
GSR084	460,100	793,450	5.00	1.00	.50	.50	700	100	700	3.0	15
SSR001B	466,860	807,000	.15	.50	15.00	.02	200	N	20	<1.0	N
SSR007B	466,850	805,520	.07	.50	>20.00	.03	150	N	20	<1.0	N
SSR015	460,280	805,670	5.00	.10	3.00	.07	300	10	300	<1.0	5
SSR016	459,750	805,620	.20	.20	20.00	.02	500	N	20	<1.0	N
SSR022B	458,220	804,230	.15	.50	>20.00	.02	150	N	20	<1.0	N
SSR025B	461,080	805,560	.50	.10	.10	.10	700	<10	200	<1.0	N
SSR039A	454,460	796,540	.20	.07	.05	.15	30	15	150	<1.0	N
SSR042	455,300	796,880	1.50	.05	<.05	.07	700	<10	100	2.0	30
SSR048	455,680	798,700	1.50	.07	.05	.10	300	<10	200	<1.0	10
TSR001	470,310	806,000	.15	.50	>20.00	.03	300	N	20	<1.0	N
TSR004	469,920	805,800	.10	.30	>20.00	.03	100	N	20	<1.0	N
TSR008	468,900	805,880	.10	.30	>20.00	.02	100	N	20	<1.0	N
TSR014A	455,220	804,950	1.50	.15	.30	.30	700	15	300	1.0	15
TSR016	455,490	804,890	3.00	.30	.10	.30	700	50	500	3.0	15
TSR019	456,190	804,640	3.00	.20	.07	.50	150	20	300	3.0	10
TSR026	458,410	802,990	.15	.30	>20.00	.03	300	N	20	<1.0	N
TSR031	452,580	802,580	3.00	.50	.20	.50	700	70	500	2.0	20
TSR032	452,640	802,560	1.00	.07	<.05	.10	700	<10	200	<1.0	5
TSR033	452,680	802,460	1.00	.07	<.05	.10	2,000	N	300	1.0	20
TSR042	454,800	802,200	.20	.30	>20.00	.07	500	N	50	1.0	N
TSR051	457,120	797,280	.50	.03	.10	.07	700	N	150	1.0	N
TSR054	457,120	796,930	2.00	.30	.07	.30	300	15	300	2.0	10
TSR064	461,400	797,220	5.00	.02	<.05	.07	200	15	150	1.0	N

Table 1.--Analyses of stream-sediment and rock samples--Continued

Rock

sample	S-CR	S-CU	S-LA	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR
GSR001	20	5	<20	<20	5	<10	N	<100	30	<10	50
GSR002	50	<5	20	<20	<5	15	N	<100	20	<10	200
GSR003	200	30	70	20	50	15	20	150	150	30	200
GSR024	50	<5	20	N	<5	N	N	500	20	30	N
GSR026	30	5	20	<20	5	<10	N	<100	20	10	100
GSR047	30	<5	20	<20	150	10	N	<100	20	15	100
GSR048	20	5	20	<20	7	10	N	<100	10	<10	30
GSR064	100	30	70	20	50	50	15	100	150	50	200
GSR065	70	5	<20	<20	20	10	N	<100	20	15	100
GSR072	70	<5	20	<20	<5	15	N	<100	20	10	200
GSR073	150	10	50	20	20	20	10	<100	150	30	300
GSR074	200	5	20	<20	10	20	5	<100	50	15	500
GSR075	200	<5	70	<20	5	20	7	<100	50	20	700
GSR076	150	5	70	<20	10	20	10	100	70	20	500
GSR077	200	20	70	<20	30	30	15	<100	150	30	500
GSR078	50	7	<20	<20	15	10	<5	<100	30	10	100
GSR079	70	10	20	<20	15	10	5	<100	30	15	200
GSR080	30	<5	20	<20	5	<10	<5	<100	50	10	70
GSR081	50	10	<20	<20	50	<10	5	<100	20	15	200
GSR082	150	<5	<20	<20	10	10	<5	<100	30	10	200
GSR083	50	5	<20	<20	10	30	10	<100	50	20	150
GSR084	150	30	50	<20	50	30	10	100	100	30	300
SSR001B	20	<5	70	N	N	<10	N	700	30	20	N
SSR007B	10	N	70	N	10	<10	N	700	15	20	N
SSR015	30	<5	20	N	30	<10	N	100	30	10	100
SSR016	20	<5	50	N	N	<10	N	700	15	30	N
SSR022B	30	N	50	N	15	<10	N	1,500	30	10	N
SSR025B	20	<5	20	N	30	20	N	N	20	N	150
SSR039A	50	<5	100	N	15	20	N	<100	20	N	100
SSR042	30	<5	N	N	20	20	5	<100	30	10	100
SSR048	30	15	50	N	20	20	N	<100	20	10	70
TSR001	30	N	70	N	10	<10	N	700	10	10	N
TSR004	10	N	50	N	15	<10	N	700	15	10	N
TSR008	20	N	50	10	N	<10	N	500	15	N	N
TSR014A	150	7	70	10	30	20	5	<100	70	30	300
TSR016	100	15	70	N	50	20	15	100	70	50	200
TSR019	150	7	70	10	30	10	15	<100	70	70	700
TSR026	30	<5	50	10	20	<10	N	700	20	10	N
TSR031	100	20	100	10	70	30	15	100	100	50	300
TSR032	100	5	20	N	30	10	N	<100	15	10	100
TSR033	20	5	20	N	50	10	N	<100	30	10	150
TSR042	20	<5	70	10	10	<10	5	700	50	70	N
TSR051	20	<5	N	N	30	10	N	<100	15	10	70
TSR054	100	7	70	N	30	20	10	100	70	50	300
TSR064	70	7	20	N	5	20	N	<100	30	10	150

Table 1.--Analyses of stream-sediment and rock samples--Continued

Rock

sample	S-AL%	S-NA%	S-LI	U E-SPEC	AA-ZN-P
GSR001	--	--	--	<1	20
GSR002	--	--	--	<1	5
GSR003	--	--	--	<1	90
GSR024	--	--	--	<1	35
GSR026	--	--	--	<1	5
GSR047	--	--	--	<1	140
GSR048	--	--	--	<1	40
GSR064	--	--	--	<1	70
GSR065	--	--	--	<1	35
GSR072	--	--	--	<1	<5
GSR073	--	--	--	<1	5
GSR074	--	--	--	<1	15
GSR075	--	--	--	<1	<5
GSR076	--	--	--	<1	100
GSR077	--	--	--	<1	35
GSR078	--	--	--	<1	15
GSR079	--	--	--	<1	15
GSR080	--	--	--	<1	<5
GSR081	--	--	--	<1	35
GSR082	--	--	--	<1	15
GSR083	--	--	--	<1	40
GSR084	--	--	--	<1	100
SSR001B	1.0	.15	N	<1	40
SSR007B	.7	.15	N	2	25
SSR015	3.0	.15	N	<1	40
SSR016	1.0	.15	N	<1	35
SSR022B	1.0	.20	N	<1	40
SSR025B	3.0	.30	N	<1	20
SSR039A	3.0	.20	N	<1	10
SSR042	2.0	.15	N	<1	30
SSR048	3.0	.30	N	<1	35
TSR001	2.0	.20	N	2	45
TSR004	1.0	.20	N	1	20
TSR008	1.0	.20	N	<1	25
TSR014A	5.0	1.00	N	<1	40
TSR016	7.0	1.00	N	1	70
TSR019	7.0	.30	N	2	40
TSR026	1.0	.20	N	1	35
TSR031	7.0	1.00	N	<1	70
TSR032	3.0	.70	N	2	40
TSR033	2.0	.30	N	<1	40
TSR042	2.0	.20	N	<1	60
TSR051	2.0	.15	N	1	20
TSR054	7.0	1.00	N	<1	45
TSR064	2.0	.15	N	2	30

Table 1.--Analyses of stream-sediment and rock samples--Continued

Rock

sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO
TSR065	461,400	797,220	.70	.02	<.05	.20	30	<10	200	<1.0	N
TSR066	461,400	797,220	1.00	.03	.05	.07	20	<10	150	<1.0	N
TSR067	461,400	797,220	.20	.03	N	.20	N	<10	100	<1.0	N
WSR007	465,790	798,090	.30	.30	20.00	.02	100	N	20	<1.0	N
WSR008	464,840	799,770	1.00	.07	.10	.20	15	10	150	<1.0	N
WSR015	462,700	793,720	.50	.05	.05	.15	10	<10	200	<1.0	N
WSR016	465,730	796,240	10.00	.07	N	.15	70	70	300	2.0	N
WSR029	456,910	798,370	3.00	.15	.07	.30	700	15	300	2.0	10

sample	S-CR	S-CU	S-LA	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR
TSR065	200	<5	N	N	30	10	N	<100	20	10	200
TSR066	20	5	N	N	7	20	N	<100	30	10	100
TSR067	70	<5	20	N	5	10	N	<100	20	10	100
WSR007	30	15	50	10	<5	<10	N	700	20	30	N
WSR008	70	5	70	N	15	10	5	<100	30	10	150
WSR015	30	10	50	N	15	10	N	<100	20	10	300
WSR016	30	<5	70	N	<5	N	10	<100	100	20	100
WSR029	70	7	70	10	30	10	5	<100	70	50	500

sample	S-AL%	S-NA%	S-LI	U E-SPEC	AA-ZN-P
TSR065	2.0	N	N	1	10
TSR066	2.0	N	N	<1	10
TSR067	3.0	.15	N	1	5
WSR007	1.0	.20	N	<1	45
WSR008	4.0	.15	N	<1	15
WSR015	3.0	.15	N	<1	10
WSR016	3.0	.30	N	<1	15
WSR029	3.0	.30	N	2	30