UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Analytical results and sample locality map of stream-sediment, heavy-mineral-concentrate, and rock samples from the Little Sand Spring Wilderness Study Area (CDCA-119), Inyo County, California

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STUDIES RELATED TO WILDERNESS

Bureau of Land Management Wilderness Study Areas

The Federal Land Policy and Management Act (Public Law 94-579, October 21, 1976) requires the U.S. Geological Survey and the U.S. Bureau of Mines to conduct mineral surveys on certain areas to determine their mineral values, if any. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a mineral survey of the Little Sand Spring Wilderness Study Area, California Desert Conservation Area, Inyo County, California.

INTRODUCTION

In the spring of 1981 and 1982, the U.S. Geological Survey conducted a reconnaissance geochemical survey of the Little Sand Spring Wilderness Study Area, Inyo County, California.

The Little Sand Spring Wilderness Study Area comprises about 77 mi^2 (33,500 acres) in the western part of the Basin and Range Province about 50 mi east of Sierra Nevada, and lies in the northeast corner of Inyo County. Access to the study area is provided to the south by route 72, and to the west and north by unimproved paved roads (figure 1).

The study area consists of unnamed mountainous terrain along the east side of the north end of Death Valley. Exposed rocks include Paleozoic carbonate and siliceous strata and Cenozoic volcanic, granitic, and sedimentary deposits. Tertiary alkali-feldspar granites have intruded the Paleozoic carbonates in the southern bounds of the study area where these exposures reveal the top of a pluton that has been dated at 7.2 $\pm$ 0.2 my old (Wrucke and others, 1984). Quaternary deposits include Holocene and Pleistocene fanglomerates, Pleistocene lake deposits, and pediment gravels.

The study area is comprised of mountainous terrain with a maximum elevation of 5,658 ft (1724.5 m). Most all streams in the study area drain to the west where alluvial fans have formed extending into Death Valley at an elevation of 2,600 ft (488 m).

METHODS OF STUDY

Sample Media

Analyses of the stream-sediment samples represent the chemistry of the rock material eroded from the drainage basin upstream from each sample site. Such information is useful in identifying those basins which contain concentrations of elements that may be related to mineral deposits. Heavy-mineral-concentrate samples provide information about the chemistry of certain minerals in rock material eroded from the drainage basin upstream from each sample site. The selective concentration of minerals, many of which may be ore-related, permits determination of some elements that are not easily detected in stream-sediment samples.

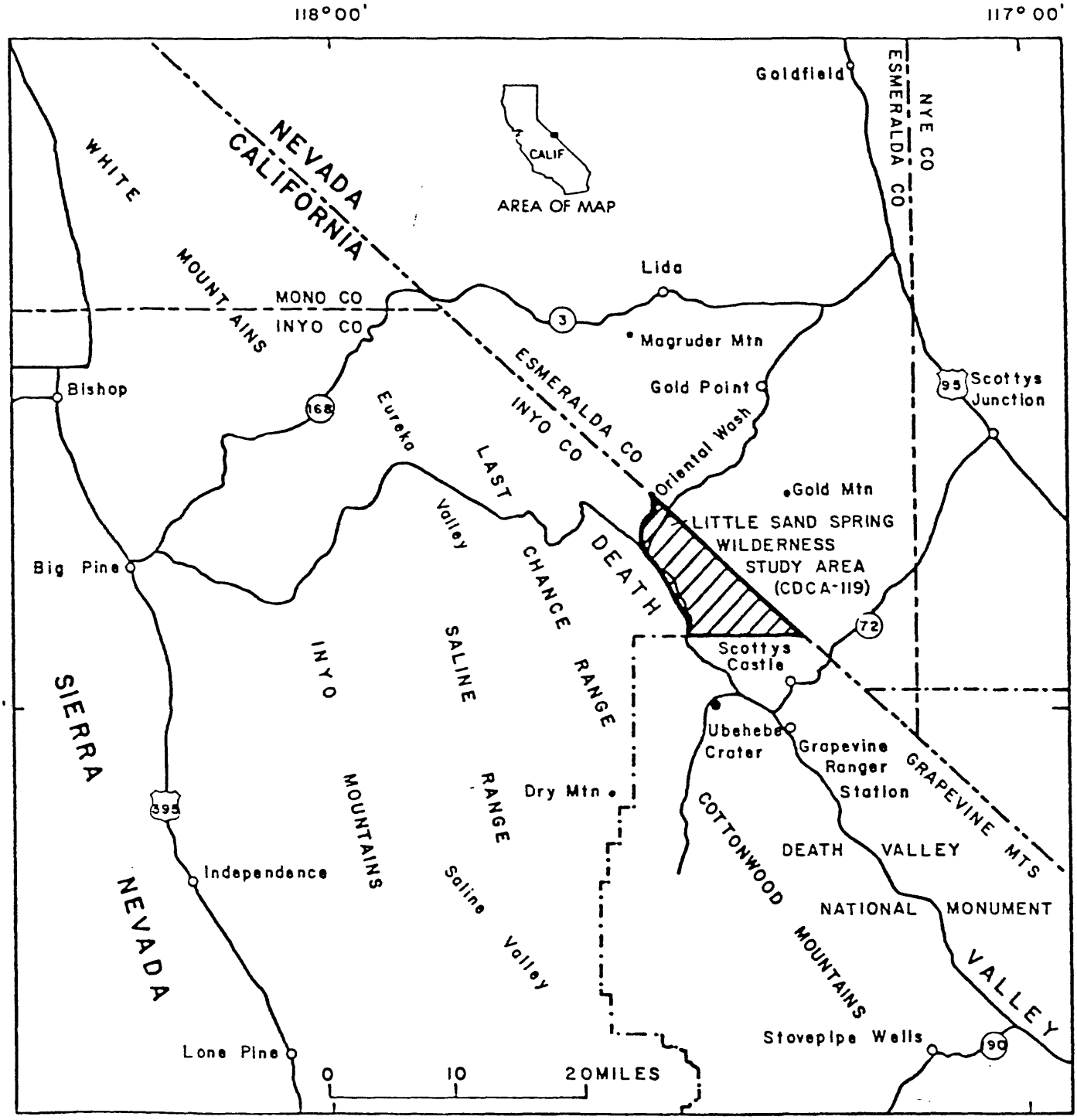

Figure 1. Map showing location of Little Sand Spring Wilderness Study Area, Inyo County, California.

Analyses of unaltered or unmineralized rock samples provide background geochemical data for individual rock units. On the other hand, analyses of altered or mineralized rocks, where present, may provide useful geochemical information about the major- and trace-element assemblages associated with a mineralizing system.

Sample Collection

Samples were collected at 71 sites (plates 1 and 2). At nearly all of those sites (68), both a stream-sediment sample and a heavy-mineral-concentrate sample were collected. Where suitable outcrop was available, rock samples were collected, and where water was available, water samples were collected. Sampling density was about 1 sample site per square mile for the stream sediments, heavy-mineral concentrates, and rocks. The area of the drainage basins sampled ranged from .5 mi^2 to 4 mi^2.

Stream-sediment samples

The stream-sediment samples consisted of active alluvium collected primarily from first-order (unbranched) and second-order (below the junction of two first-order) streams as shown on USGS topographic maps (scale = 1:62,500). Each sample was composited from several localities within an area that may extend as much as 200 ft from the site plotted on the map.

Heavy-mineral-concentrate samples

Heavy-mineral-concentrate samples were collected from the same active alluvium as the stream-sediment samples. Each bulk sample was screened with a 2.0-mm (10-mesh) screen to remove the coarse material. The less than 2.0-mm fraction was panned until most of the quartz, feldspar, organic material, and clay-sized material were removed.

Rock samples

Rock samples were collected from outcrops or exposures in the vicinity of the plotted site location. Samples were collected from unaltered and/or altered and/or mineralized rocks.

Sample Preparation

The stream sediment samples were air dried, then sieved using 80 mesh (0.17 mm) stainless steel sieves. The portion of the sediment passing through the sieve was saved for analysis.

After air drying, bromoform (specific gravity 2.8) was used to remove the remaining quartz and feldspar from the heavy-mineral-concentrate samples that had been panned in the field. The resultant heavy mineral sample was separated into three fractions using a large electromagnet (in this case a modified Frantz Isodynamic Separator). The most magnetic material, primarily magnetite, was not analyzed. The second fraction, largely ferromagnesian silicates and iron oxides, was saved for analysis/archival storage. The third fraction (the least magnetic material which may include the nonmagnetic ore minerals, zircon, sphene, etc.) was split using a Jones splitter. One split was hand-ground for spectrographic analysis; the other split was saved for

mineralogical analysis. These magnetic separates are the same separates that would be produced by using a Frantz Isodynamic Separator set at a slope of 15° and a tilt of 10° with a current of 0.1 ampere to remove the magnetite and ilmenite, and a current of 1.0 ampere to split the remainder of the sample into paramagnetic and nonmagnetic fractions.

Rock samples were crushed and then pulverized to minus 0.15 mm with ceramic plates.

Sample Analysis

Spectrographic method

The stream-sediment, heavy-mineral-concentrate, and rock samples were analyzed for 31 elements using a semiquantitative, direct-current arc emission spectrographic method (Grimes and Marranzino, 1968). The elements analyzed and their lower limits of determination are listed in table 1. Spectrographic results were obtained by visual comparison of spectra derived from the sample against spectra obtained from standards made from pure oxides and carbonates. Standard concentrations are geometrically spaced over any given order of magnitude of concentration as follows: 100, 50, 20, 10, and so forth. Samples whose concentrations are estimated to fall between those values are assigned values of 70, 30, 15, and so forth. The precision of the analytical method is approximately plus or minus one reporting interval at the 83 percent confidence level and plus or minus two reporting intervals at the 96 percent confidence level (Motooka and Grimes, 1976). Values determined for the major elements (iron, magnesium, calcium, and titanium) are given in weight percent; all others are given in parts per million (micrograms/gram). Analytical data for samples from the Little Sand Spring Wilderness Study Area are listed in tables 4-6.

Chemical Methods

Other methods of analysis used on samples from the Little Sand Spring Wilderness Study Area are summarized in table 2.

Analytical results for stream-sediment and rock samples are listed in tables 4 and 6, respectively.

ROCK ANALYSIS STORAGE SYSTEM

Upon completion of all analytical work, the analytical results were entered into a computer-based file called Rock Analysis Storage System (RASS). This data base contains both descriptive geological information and analytical data. Any or all of this information may be retrieved and converted to a binary form (STATPAC) for computerized statistical analysis or publication (VanTrump and Miesch, 1976).

DESCRIPTION OF DATA TABLES

A brief description of rock samples collected from the Little Sand Spring Wilderness Study Area is provided in table 3. A more detailed description of the rock sampling and its implications to the resource potential of the area is given in U.S. Geological Survey Open-File Report 84-557 (Wrucke and others, 1984).

Tables 4-6 list the analyses for the samples of stream sediment, heavy-mineral concentrate, and rock, respectively. The last four samples listed in tables 4 and 5 were collected by Bureau of Land Management (BLM) personnel. These samples were analyzed by the Branch of Analytical Chemistry, U.S. Geological Survey in Denver, Colorado, using a similar emission spectrographic method to that used for the analysis of other samples described in this report. This use of a similar technique accounts for slight differences seen in lower limits of determination and analytical reporting intervals. For the three tables, the data are arranged so that columns 1 and 2 contain the USGS-assigned sample numbers. These numbers correspond to the numbers shown on the site location maps (plate 1). Columns in which the element headings show the letter "s" below the element symbol are emission spectrographic analyses; "aa" indicates atomic absorption analyses. A letter "N" in the tables indicates that a given element was looked for but not detected at the lower limit of determination shown for that element in table 1. If an element was observed but was below the lowest reporting value, an < was entered in the tables after the lower limit of determination. If an element was observed but was above the highest reporting value, a > was entered in the tables after the upper limit of determination. If an element was not looked for in a sample, two dashes (--) are entered in tables 4-6 in place of an analytical value. Because of the formatting used in the computer program that produced tables 4-6, some of the elements listed in these tables (Fe, Mg, Ca, Ti, Ag, and Be) carry one or more nonsignificant digits to the right of the significant digits. The analysts did not determine these elements to the accuracy suggested by the extra zeros.

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TABLE 1.--Limits of determination for the spectrographic analysis of rocks and stream sediments, based on a 10-mg sample

[The spectrographic limits of determination for heavy-mineral-concentrate samples are based on a 5-mg sample, and are therefore two reporting intervals higher than the limits given for rocks and stream sediments]

Elements	Lower determination limit	Upper determination limit
	Percent	
Iron (Fe)	0.05	20
Magnesium (Mg)	.02	10
Calcium (Ca)	.05	20
Titanium (Ti)	.002	1
	Parts per million	
Manganese (Mn)	10	5,000
Silver (Ag)	0.5	5,000
Arsenic (As)	200	10,000
Gold (Au)	10	500
Boron (B)	10	2,000
Barium (Ba)	20	5,000
Beryllium (Be)	1	1,000
Bismuth (Bi)	10	1,000
Cadmium (Cd)	20	500
Cobalt (Co)	5	2,000
Chromium (Cr)	10	5,000
Copper (Cu)	5	20,000
Lanthanum (La)	20	1,000
Molybdenum (Mo)	5	2,000
Niobium (Nb)	20	2,000
Nickel (Ni)	5	5,000
Lead (Pb)	10	20,000
Antimony (Sb)	100	10,000
Scandium (Sc)	5	100
Tin (Sn)	10	1,000
Strontium (Sr)	100	5,000
Vanadium (V)	10	10,000
Tungsten (W)	50	10,000
Yttrium (Y)	10	2,000
Zinc (Zn)	200	10,000
Zirconium (Zr)	10	1,000
Thorium (Th)	100	2,000

Table 2.--Commonly used chemical methods

[AA = atomic absorption; I = instrumental; SI = specific ion;
S = spectrophotometry; and F = fluorometry]

Element or constituent determined	Method	Determination limit (micrograms/ gram or ppm)	Reference
Gold (Au)	AA	0.05	Thompson and others, 1968
Mercury (Hg)	I	0.02	Modification of McNerney and others, 1972, and Vaughn, and McCarthy, 1964.
Arsenic (As)	AA	5 or 10	Modification of Viets, 1978
Antimony (Sb)	AA	2	
Zinc (Zn)	AA	5	
Bismuth (Bi)	AA	1	
Cadmium (Cd)	AA	0.1	

TABLE 3.--Description of rock samples collected from the Little Sand Spring Wilderness Study Area, California

IV263R	Limestone, iron stained and brecciated
IV399R	Dolomite, brecciated
IV399RA	Dolomite, brecciated
IV399RB	Dolomite, brecciated
IV402R	Eureka quartzite, brecciated and resilicified
IV402RA	Zoned quartz vein with black calcite
IV402RB	Quartz vein with black calcite
IV402RC	Quartz monzonite, sericitically altered
IV402RD	Granite with granophere texture
IV402RE	Skarn, metamorphosed dolomite with quartz veinlets
IV402RF	Porphyritic granite
IV402RG	Granite, brecciated and surfaced stained
IV402RH	Granite, brecciated, with iron oxide
IV403R	Quartz vein, visible galena, anglesite, and secondary copper
IV403RA	Granite, proplytically altered, with quartz-epidote veins
IV403RB	Granite, sericitically altered
IV403RD	Channel sample of fault gouge from prospect pit
IV403RE	Granite, strong sericitic alteration
IV403RF	Black oxidized and silicified material (high silver)
IV404R	Vein containing biotite, propylitically altered
IV404RB	Material from biotite vein with some secondary copper
IV404RC	Material from biotite vein with some secondary copper
IV404RD	Material from biotite vein with some secondary copper
IV404RE	Granite, sericitically altered and brecciated
IV404RF	Brecciated vein in granite
IV404RG	Vein material with secondary base metal mineralization
IV404RH	Vein material, brecciated
IV404RJ	Quartz, (drusy or chalcedonic)
IV404RL	Composite sample from mine dump with some pyrite
IV404RM	Oxide coated material from mine dump
IV405R	Dark brown cherty layer in limestone with diseminated pyrite
IV405RA	Siliceous veins in limestone skarn
IV405RB	Limestone, fractured, with iron oxides
IV405RD	Quartz vein, manganese and iron stained
IV405RE	Limestone skarn (calc-silicate mineralization)
IV405RF	Fault gouge
IV406R	Quartz monzonite dike
IV406RA	Quartz vein with calcite
IV406RB	Limestone skarn
IV406RC	Garnetite skarn
IV406RD	Quartz vein with chloritized biotite
IV406RE	Quartz monzonite
IV406RF	Limestone, recrystalized
IV406RG	Limestone, recrystalized, with iron oxides
IV406RH	Quartz Vein with some calcite

TABLE 3.--continued

IV406RI	Fault gouge
IV406RJ	Skarn (garnetite pods in marble)
IV406RK	Quartz vein with diseminated pyrite
IV406RL	Quartz vein, iron oxide stained
IV406RM	Quartz monzonite
IV408R	K-feldspar vein (potassic alteration) with oxidized pyrite
IV408RA	Granite, fractured, with iron oxides
IV408RB	Granite with sericite veins and finely diseminated sulfides
IV408RC	Granite, brecciated
IV408RD	Calcite vein
IV408RE	Granite, sericitic and potassic alteration (chip sample)
IV408RG	Granite with K-feldspar veins
IV408RI	Vein, fluorite with chalcopyrite and secondary copper
IV408RJ	Granite with intense quartz-sericite alteration
IV408RK	Quartz vein with oxidized pyrite
IV408RL	Quartz vein with fluorite and fine grained sulfide minerals
IV408RM	Quartz vein with fluorite, chalcopyrite, and secondary copper
IV408RN	Quartz vein with brown calcite and fluorite
IV408RO	Quartz vein with oxidized sulfide minerals
IV408RP	Quartz vein with calcite
IV408RQ	Composite sample from mine dump
SV324R1	Wyman formation, altered to skarn
SV324R2	Wyman formation, unaltered metasediments
SV324R3	Granite, unaltered
SV324R4	Granite, felsic
SV324R5	Granite
SV324R6	Granite
SV324R7	Quartz vein
SV324R8	Granite
SV325R1	Wyman formation, altered to skarn
SV325R2	Wyman formation, altered to skarn
SV326R1	Granite (Sylvania pluton)
SV326R2	Quartz vein
SV327R1	Granite (Sylvania pluton)
SV328R1	Granite (Sylvania pluton)
SV329R1	Granite, (Sylvania pluton) heavily iron oxide stained
SV330R1	Wyman formation, altered to skarn
SV331R1	Granite (Sylvania pluton)
SV331R2	Granite (Sylvania pluton)
SV331R3	Quartz, druzy, late stage mineralization
SV332R1	Granite (Sylvania pluton)

Table 4. - - Analyses of stream sediment samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
IV446S	37 14 43	117 23 17	3.0	1.0	2.0	.50	1,000	N	N	N	50	1,500
IV447S	37 14 10	117 23 43	5.0	1.5	2.0	.70	1,500	N	N	N	70	1,500
IV448S	37 13 37	117 24 38	3.0	2.0	3.0	.70	1,500	N	N	N	100	1,500
IV449S	37 14 11	117 25 52	5.0	1.0	2.0	.50	1,500	N	N	N	70	1,500
IV450S	37 14 18	117 27 41	7.0	1.0	2.0	.50	1,500	N	N	N	100	1,000
IV451S	37 13 37	117 28 35	7.0	1.5	3.0	.70	1,500	N	N	N	100	1,500
IV452S	37 13 19	117 28 18	7.0	2.0	5.0	.70	1,000	N	N	N	100	1,500
IV453S	37 13 0	117 28 44	5.0	7.0	15.0	.50	1,500	N	N	N	150	1,500
IV454S	37 12 25	117 28 38	5.0	10.0	15.0	.30	1,500	.7	N	N	100	700
IV455S	37 12 25	117 27 34	5.0	1.5	3.0	.70	1,000	N	N	N	70	2,000
IV456S	37 12 27	117 27 35	7.0	2.0	7.0	1.00	1,500	N	N	N	100	2,000
IV457S	37 11 57	117 27 22	5.0	2.0	5.0	1.00	1,500	N	N	N	70	2,000
IV458S	37 6 0	117 27 28	5.0	5.0	10.0	.70	1,500	N	N	N	150	1,500
IV459S	37 7 8	117 29 17	5.0	7.0	20.0	.50	1,500	N	N	N	100	1,000
IV460S	37 12 10	117 26 21	7.0	5.0	5.0	.70	2,000	N	N	N	100	1,500
IV461S	37 12 5	117 26 20	7.0	5.0	10.0	.70	2,000	N	N	N	100	1,500
IV462S	37 11 53	117 25 20	3.0	1.0	1.5	.50	1,500	N	N	N	50	1,500
IV463S	37 12 23	117 23 55	5.0	2.0	2.0	.70	1,500	N	N	N	100	1,500
IV464S	37 13 18	117 23 9	5.0	2.0	3.0	.70	2,000	N	N	N	100	1,500
IV465S	37 13 16	117 23 0	5.0	2.0	3.0	.70	2,000	N	N	N	100	1,500
SVK1S	37 7 6	117 18 57	5.0	2.0	2.0	.50	1,000	N	N	N	70	700
SVK2S	37 7 59	117 19 8	7.0	3.0	2.0	.70	1,000	<.5	N	N	100	1,000
SVK3S	37 8 30	117 20 44	5.0	1.5	1.5	.50	700	N	N	N	70	700
SVK4S	37 8 37	117 20 49	7.0	2.0	2.0	.70	1,000	N	N	N	100	1,000
SVK5S	37 11 19	117 21 15	5.0	2.0	2.0	.50	1,000	<.5	N	N	100	1,000
SVK6S	37 11 21	117 21 23	7.0	2.0	1.5	.50	1,000	<.5	N	N	50	1,000
SVK7S	37 10 18	117 23 15	7.0	2.0	1.5	.70	1,000	N	N	N	70	1,000
SVK8S	37 10 11	117 23 9	5.0	2.0	2.0	.30	1,000	N	N	N	70	1,000
SVK9S	37 10 15	117 23 34	10.0	3.0	2.0	.70	1,000	<.5	N	N	50	1,000
SVK10S	37 10 17	117 23 45	7.0	1.5	2.0	.50	1,000	<.5	N	N	70	1,000
SVK11S	37 10 28	117 24 15	3.0	1.0	1.0	.20	700	<.5	N	N	50	500
SVK12S	37 11 21	117 24 58	5.0	1.0	1.5	.70	1,000	N	N	N	50	700
SVK13S	37 11 53	117 25 5	5.0	2.0	1.5	.50	1,000	<.5	N	N	50	1,000
SVK14S	37 12 18	117 24 1	5.0	1.0	.7	.50	700	N	N	N	50	300
IV239	37 11 10	117 27 51	3.0	1.5	2.0	.30	1,000	N	N	N	70	700
IV240	37 11 13	117 27 54	5.0	2.0	3.0	.50	700	N	N	N	70	700
IV241	37 9 44	117 27 34	3.0	1.5	2.0	.50	700	N	N	N	100	700
IV242	37 9 48	117 27 36	3.0	1.5	3.0	.50	700	N	N	N	100	700
IV243	37 10 15	117 27 22	3.0	1.5	3.0	.50	700	N	N	N	100	700
IV244	37 10 11	117 27 21	3.0	2.0	3.0	.50	1,000	N	N	N	70	700
IV245	37 9 21	117 27 42	3.0	2.0	3.0	.50	1,000	N	N	N	100	700
IV246	37 8 43	117 27 33	3.0	3.0	5.0	.50	1,000	N	N	N	100	700
IV247	37 9 7	117 26 56	2.0	1.5	2.0	.30	1,000	N	N	N	70	700
IV248	37 8 56	117 26 10	2.0	1.5	2.0	.30	1,000	N	N	N	70	700
IV249	37 8 52	117 26 11	2.0	1.5	2.0	.30	700	N	N	N	70	700

Table 4. - - Analyses of stream sediment samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s
IV446S	<5.0	N	N	10.0	50	10	150	N	<20	10	100	N
IV447S	<5.0	N	N	10.0	70	20	100	N	<20	20	100	N
IV448S	<5.0	N	N	15.0	70	15	150	N	<20	20	100	N
IV449S	<5.0	N	N	10.0	50	15	200	N	<20	20	150	N
IV450S	<5.0	N	N	10.0	50	15	300	<5.0	20	20	70	N
IV451S	5.0	N	N	15.0	100	20	200	N	20	20	100	N
IV452S	<5.0	N	N	15.0	70	10	150	N	<20	20	70	N
IV453S	N	N	N	15.0	70	30	150	N	N	30	100	N
IV454S	N	N	N	15.0	100	30	100	15.0	N	30	150	N
IV455S	N	N	N	15.0	50	20	150	N	<20	20	150	N
IV456S	N	N	N	15.0	100	20	200	N	<20	30	100	N
IV457S	N	N	N	15.0	70	20	200	N	<20	30	70	N
IV458S	N	N	N	15.0	100	20	100	N	<20	30	50	N
IV459S	N	N	N	15.0	100	7	100	N	N	30	100	N
IV460S	5.0	N	N	15.0	70	30	150	N	<20	30	100	N
IV461S	<5.0	N	N	15.0	100	30	300	<5.0	20	30	100	N
IV462S	5.0	N	N	5.0	20	<5	200	N	20	5	70	N
IV463S	<5.0	N	N	15.0	70	20	150	N	20	20	100	N
IV464S	<5.0	N	N	15.0	70	20	150	N	20	20	100	N
IV465S	<5.0	N	N	15.0	70	20	150	N	20	20	100	N
SVK1S	2.0	N	N	20.0	100	20	70	N	N	50	50	N
SVK2S	1.5	N	N	30.0	150	30	100	7.0	<20	70	50	N
SVK3S	2.0	N	N	15.0	70	15	50	N	<20	50	30	N
SVK4S	2.0	N	N	30.0	150	30	100	N	N	70	70	N
SVK5S	3.0	N	N	20.0	100	20	100	N	20	50	70	N
SVK6S	3.0	N	N	30.0	200	20	70	N	N	50	50	N
SVK7S	2.0	N	N	30.0	200	20	100	5.0	<20	50	50	N
SVK8S	2.0	N	N	20.0	200	20	100	N	N	50	50	N
SVK9S	1.5	N	N	30.0	300	30	150	<5.0	20	70	100	N
SVK10S	3.0	N	N	15.0	100	20	100	N	<20	100	70	N
SVK11S	2.0	N	N	N	50	7	70	N	N	10	100	N
SVK12S	3.0	N	N	15.0	150	10	100	N	<20	50	50	N
SVK13S	1.5	N	N	15.0	100	10	100	N	N	20	70	N
SVK14S	1.0	N	N	10.0	50	10	100	N	N	15	50	N
IV239	N	N	N	10.0	100	15	200	N	N	30	50	N
IV240	N	N	N	15.0	100	20	150	N	N	30	30	N
IV241	N	N	N	10.0	100	15	70	N	N	30	30	N
IV242	N	N	N	15.0	100	15	100	N	N	30	50	N
IV243	N	N	N	15.0	100	15	70	N	N	30	30	N
IV244	N	N	N	15.0	150	15	150	N	N	30	30	N
IV245	N	N	N	15.0	150	15	100	N	N	50	30	N
IV246	N	N	N	20.0	200	20	100	N	N	70	50	N
IV247	N	N	N	10.0	70	10	70	N	N	30	30	N
IV248	N	N	N	7.0	50	10	70	N	N	20	30	N
IV249	5.0	N	N	7.0	50	10	70	N	20	20	30	N

Table 4. - - Analyses of stream sediment samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s	Hg-ppm inst	As-ppm aa	Zn-ppm aa	Sb-ppm aa
IV446S	N	1,000	100	N	20	N	N	.02	N	65	N
IV447S	N	1,000	100	N	70	N	N	.02	<5	55	N
IV448S	N	700	100	N	50	N	N	.02	<5	55	N
IV449S	N	700	100	N	30	N	N	.02	<5	50	N
IV450S	N	500	150	N	50	N	N	.02	<5	65	N
IV451S	N	1,500	200	N	50	N	N	.02	<5	50	N
IV452S	N	1,500	150	N	20	N	N	.04	<5	50	N
IV453S	N	1,500	150	N	50	N	N	.06	<5	60	1
IV454S	N	700	100	N	30	N	N	.06	<5	60	N
IV455S	N	1,500	150	N	20	N	N	.06	<5	60	N
IV456S	N	1,500	200	N	50	N	N	.06	<5	70	N
IV457S	N	2,000	200	N	30	N	N	.08	<5	55	N
IV458S	N	1,000	150	N	50	N	N	.20	<5	65	N
IV459S	N	700	150	N	30	N	N	.12	<5	50	N
IV460S	N	1,000	200	N	50	N	N	.04	<5	70	N
IV461S	N	700	200	N	50	N	N	.04	<5	75	1
IV462S	N	700	70	N	50	N	N	.04	<5	65	N
IV463S	N	700	150	N	50	N	N	.04	<5	65	1
IV464S	N	700	200	N	50	N	N	.04	<5	65	1
IV465S	N	1,000	200	N	70	N	N	.02	<5	65	N
SVK1S	N	500	150	N	30	N	N	.02	5	70	N
SVK2S	N	700	200	N	50	N	N	.04	<5	70	N
SVK3S	N	300	150	N	30	N	N	.02	<5	60	N
SVK4S	N	500	200	N	30	N	N	<.02	N	70	N
SVK5S	N	500	100	N	50	N	N	<.02	N	55	N
SVK6S	N	500	150	N	30	N	N	.02	N	75	N
SVK7S	N	500	150	N	50	N	N	.02	N	70	N
SVK8S	N	500	100	N	30	N	N	.02	<5	75	N
SVK9S	N	700	200	N	50	N	N	.02	<5	70	N
SVK10S	N	700	150	N	50	N	N	<.02	N	60	N
SVK11S	N	200	20	N	30	N	N	.02	5	30	N
SVK12S	N	500	150	N	50	N	N	.02	5	55	N
SVK13S	N	500	100	N	30	N	N	<.02	5	55	N
SVK14S	N	200	50	N	20	N	N	.02	5	70	N
IV239	N	500	100	N	50	N	N	.01	N	50	3
IV240	N	700	100	N	30	N	N	.02	<10	50	3
IV241	N	500	100	N	30	N	N	.01	N	50	2
IV242	N	700	70	N	30	N	N	.01	<10	50	2
IV243	N	700	70	N	20	N	N	<.01	N	65	2
IV244	N	700	100	N	30	N	N	.02	<10	45	2
IV245	N	700	100	N	30	N	N	.04	N	45	2
IV246	N	700	100	N	30	N	N	.01	<10	60	2
IV247	N	500	100	N	30	N	N	.01	N	45	?
IV248	N	500	70	N	30	N	N	<.01	N	40	

Table 4. - - Analyses of stream sediment samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
IV250	37 8 5	117 26 13	3.0	2.0	3.0	.50	1,000	N	N	N	70	700
IV251	37 8 18	117 24 51	2.0	1.0	3.0	.30	700	N	N	N	150	700
IV252	37 8 14	117 24 45	3.0	1.5	3.0	.50	1,000	N	N	N	70	700
IV253	37 7 55	117 24 41	2.0	1.5	2.0	.30	1,000	N	N	N	100	700
IV254	37 7 45	117 24 38	2.0	1.5	2.0	.30	1,000	N	N	N	70	1,000
IV255	37 7 52	117 23 45	2.0	2.0	3.0	.30	700	N	N	N	70	700
IV256	37 7 46	117 23 44	2.0	2.0	2.0	.30	1,000	N	N	N	70	700
IV257	37 6 56	117 23 10	2.0	2.0	3.0	.30	700	N	N	N	100	1,000
IV258	37 6 51	117 2 19	3.0	2.0	3.0	.50	1,000	N	N	N	100	1,000
IV259	37 6 23	117 24 38	3.0	2.0	7.0	.30	700	N	N	N	150	1,000
IV260	37 6 30	117 24 58	3.0	1.5	2.0	.50	1,500	N	N	N	30	1,000
IV261	37 6 21	117 25 28	3.0	5.0	10.0	.30	700	<.5	N	N	100	1,000
IV262	37 6 38	117 26 20	3.0	2.0	5.0	.50	700	N	N	N	100	700
IV263	37 6 22	117 28 10	2.0	7.0	10.0	.30	700	N	N	N	70	500
IV264	37 6 42	117 28 37	2.0	5.0	10.0	.30	700	N	N	N	70	700
IV265	37 7 43	117 29 12	5.0	3.0	5.0	.50	1,000	N	N	N	70	700
IV266	37 7 13	117 28 43	5.0	2.0	5.0	.70	700	N	N	N	100	700
IV267	37 7 11	117 28 40	3.0	2.0	5.0	.50	700	N	N	N	70	700
IV268	37 5 37	117 27 30	3.0	7.0	15.0	.20	500	N	N	N	50	500
IV269	37 5 1	117 27 15	2.0	5.0	15.0	.30	500	N	N	N	50	500
IV270	37 4 27	117 26 36	2.0	5.0	10.0	.30	700	N	N	N	70	500
IV271	37 4 52	117 22 45	5.0	2.0	7.0	.50	700	N	N	N	150	1,000
IV272	37 4 53	117 22 40	3.0	2.0	5.0	.50	1,000	N	N	N	70	1,000
IV273	37 4 29	117 21 30	5.0	5.0	5.0	.70	700	N	N	N	50	700
IV274	37 4 34	117 20 51	5.0	3.0	5.0	.50	700	N	N	N	70	1,000
IV275	37 5 19	117 19 26	3.0	3.0	3.0	.50	1,000	N	N	N	70	700
Samples collected from the Little Sand Springs Wilderness Study Area by the Bureau of Land Management.												
D200778	37 7 8	117 28 52	2.8	1.5	5.2	.52	460	--	--	--	14	950
D200779	37 8 55	117 26 36	2.7	1.2	1.9	.47	550	--	--	--	23	800
D200870	37 6 40	117 26 21	3.0	1.6	4.1	.55	560	--	--	--	42	550
D200810	37 2 40	117 25 22	4.0	2.3	6.8	.92	470	--	--	--	31	900

Table 4. - - Analyses of stream sediment samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s
IV250	N	N	N	15.0	100	15	100	N	20	50	30	N
IV251	N	N	N	7.0	50	10	150	N	N	20	20	N
IV252	N	N	N	15.0	70	10	100	N	N	30	30	N
IV253	N	N	N	7.0	30	10	70	N	N	20	30	N
IV254	N	N	N	7.0	20	10	100	N	N	15	30	N
IV255	N	N	N	10.0	50	10	100	N	N	20	20	N
IV256	N	N	N	10.0	70	15	70	N	N	30	30	N
IV257	5.0	N	N	10.0	100	10	70	N	N	30	30	N
IV258	N	N	N	15.0	150	20	70	N	N	50	30	N
IV259	N	N	N	10.0	100	15	70	N	N	30	30	N
IV260	N	N	N	10.0	70	10	100	N	20	30	20	N
IV261	N	N	N	10.0	150	15	70	<5.0	N	70	50	N
IV262	N	N	N	10.0	100	15	70	5.0	20	50	50	N
IV263	N	N	N	10.0	100	10	70	N	N	30	30	N
IV264	N	N	N	10.0	50	10	100	N	N	30	30	N
IV265	N	N	N	20.0	150	15	70	N	N	70	30	N
IV266	N	N	N	15.0	100	15	70	N	N	50	30	N
IV267	N	N	N	10.0	70	15	100	N	20	30	30	N
IV268	N	N	N	15.0	100	10	70	N	N	30	20	N
IV269	N	N	N	10.0	70	10	70	N	N	30	50	N
IV270	N	N	N	10.0	50	10	70	N	N	30	70	N
IV271	N	N	N	15.0	150	20	70	7.0	N	70	30	N
IV272	N	N	N	10.0	100	15	70	N	N	50	30	N
IV273	N	N	N	20.0	200	20	70	N	N	100	20	N
IV274	N	N	N	20.0	200	20	70	N	N	70	20	N
IV275	N	N	N	15.0	150	15	100	N	N	70	20	N
Samples collected from the Little Sand Springs Wilderness Study Area by the Bureau of Land Management.--Continued												
D200778	5.4	--	--	9.6	24	11	73	3.5	26	23	16	--
D200779	6.4	--	--	8.0	40	12	57	4.1	43	21	19	--
D200870	6.5	--	--	9.1	35	19	64	5.1	33	29	21	--
D200810	4.5	--	--	14.0	62	16	70	16.0	21	46	12	--

Table 4. - - Analyses of stream sediment samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s	Hg-ppm inst	As-ppm aa	Zn-ppm aa	Sb-ppm aa
IV250	N	500	100	N	30	N	N	.01	N	55	2
IV251	N	500	100	N	50	N	N	<.01	<10	40	2
IV252	N	500	100	N	30	N	N	<.01	<10	40	2
IV253	N	500	70	N	20	N	N	.02	N	40	2
IV254	N	500	70	N	20	N	N	.02	N	50	2
IV255	N	500	100	N	30	N	N	.01	N	45	2
IV256	N	500	100	N	30	N	N	.01	N	55	3
IV257	N	500	70	N	30	N	N	.01	N	50	2
IV258	N	500	100	N	30	N	N	.02	<10	60	2
IV259	N	500	150	N	30	N	N	.42	10	50	3
IV260	N	700	100	N	30	N	N	.03	N	40	2
IV261	N	500	150	N	30	N	N	.26	<10	75	15
IV262	N	500	150	N	50	N	N	.33	10	55	3
IV263	N	500	100	N	30	N	N	.04	10	45	3
IV264	N	300	100	N	30	N	N	.05	<10	45	3
IV265	N	500	100	N	30	N	N	.02	<10	50	2
IV266	N	500	150	N	30	N	N	.02	<10	45	2
IV267	N	500	150	N	30	N	N	.05	N	55	2
IV268	N	500	50	N	15	N	N	.01	<10	50	6
IV269	N	500	70	N	20	N	N	.02	<10	55	6
IV270	N	300	70	N	20	N	N	.01	<10	80	4
IV271	N	300	200	N	30	N	N	.41	20	60	19
IV272	N	500	100	N	30	N	N	.12	N	45	5
IV273	N	700	150	N	30	N	N	.04	<10	55	2
IV274	N	700	100	N	30	N	N	.03	N	60	2
IV275	N	500	100	N	30	N	N	.01	<10	50	2
Samples collected from the Little Sand Springs Wilderness Study Area by the Bureau of Land Management.--Continued											
D200778	<4.6	1,100	85	--	28	60	--	--	--	--	--
D200779	<4.6	490	74	--	43	67	--	--	--	--	--
D200870	<4.6	680	86	--	39	87	--	--	--	--	--
D200810	<4.6	720	89	--	36	87	--	--	--	--	--

Table 5. - - Analyses of heavy-mineral concentrate samples collected from the Little Sand Spring Wilderness Area, Inyo County, California

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s
IV239	37 11 10	117 27 51	2.0	5.0	15.0	>2.00	1,500	N	N	N	100
IV240	37 11 13	117 27 54	2.0	10.0	30.0	>2.00	1,000	N	N	N	100
IV241	37 9 44	117 27 34	3.0	5.0	20.0	>2.00	1,500	N	N	N	200
IV242	37 9 48	117 27 36	2.0	2.0	20.0	>2.00	1,000	N	N	N	150
IV243	37 10 15	117 27 22	2.0	3.0	30.0	>2.00	1,500	N	N	N	100
IV244	37 10 11	117 27 21	3.0	5.0	20.0	>2.00	1,000	N	N	N	100
IV245	37 9 21	117 27 42	1.0	1.5	15.0	>2.00	1,000	N	N	N	150
IV246	37 8 43	117 27 33	5.0	7.0	20.0	>2.00	2,000	N	N	N	150
IV247	37 9 7	117 26 56	1.5	2.0	30.0	>2.00	1,500	N	N	N	150
IV248	37 8 56	117 26 10	1.0	1.0	30.0	>2.00	1,500	N	N	N	150
IV249	37 8 52	117 26 11	2.0	2.0	20.0	>2.00	1,500	N	N	N	100
IV250	37 8 5	117 26 13	1.5	.7	30.0	>2.00	1,000	N	N	N	100
IV251	37 8 18	117 24 51	1.0	.5	30.0	>2.00	1,500	N	N	N	100
IV252	37 8 14	117 24 45	3.0	5.0	20.0	>2.00	1,500	N	N	N	200
IV253	37 7 55	117 24 41	1.0	1.0	20.0	>2.00	1,000	<1	N	N	100
IV254	37 7 45	117 24 38	1.5	3.0	15.0	>2.00	1,000	N	N	N	150
IV255	37 7 52	117 23 45	1.5	3.0	15.0	>2.00	1,000	N	N	N	150
IV256	37 7 46	117 23 44	3.0	3.0	15.0	>2.00	1,500	N	N	N	200
IV257	37 6 56	117 23 10	1.0	2.0	20.0	>2.00	1,000	N	N	N	150
IV258	37 6 51	117 23 8	1.0	29.0	15.0	>2.00	1,000	N	N	N	100
IV259	37 6 23	117 24 38	5.0	3.0	20.0	>2.00	5,000	N	N	N	200
IV260	37 6 30	117 24 58	2.0	1.5	20.0	>2.00	1,500	N	N	N	100
IV261	37 6 21	117 25 28	1.0	.7	10.0	>2.00	500	N	N	N	150
IV262	37 6 38	117 26 20	3.0	2.0	15.0	>2.00	1,500	N	N	N	150
IV263	37 6 22	117 28 10	1.5	1.5	30.0	>2.00	1,000	N	N	N	200
IV264	37 6 42	117 28 37	2.0	29.0	30.0	2.00	500	N	N	N	200
IV265	37 7 43	117 29 12	3.0	3.0	20.0	>2.00	1,000	N	N	N	150
IV267	37 7 11	117 28 40	1.5	.7	20.0	>2.00	1,000	N	N	N	100
IV268	37 5 37	117 27 30	2.0	.7	20.0	>2.00	1,000	N	N	N	150
IV269	37 5 1	117 27 15	1.0	2.0	30.0	>2.00	1,500	N	N	N	200
IV270	37 4 27	117 26 36	3.0	15.0	20.0	>2.00	2,000	N	N	N	300
IV271	37 4 52	117 22 45	.7	.7	20.0	>2.00	1,000	N	N	N	100
IV272	37 4 53	117 22 40	.5	.5	20.0	>2.00	1,000	N	N	N	100
IV273	37 4 29	117 21 30	10.0	10.0	15.0	>2.00	3,000	N	N	N	100
IV275	37 5 19	117 19 26	1.0	2.0	10.0	>2.00	1,000	N	N	N	30
SVK1C	37 7 6	117 18 57	1.0	.2	15.0	>2.00	200	N	N	N	<20
SVK2C	37 7 59	117 19 8	2.0	1.5	10.0	>2.00	500	N	N	N	50
SVK3C	37 8 30	117 20 44	5.0	2.0	7.0	>2.00	1,500	N	N	N	150
SVK4C	37 8 37	117 20 49	7.0	29.0	5.0	>2.00	1,500	N	N	N	50
SVK5C	37 11 19	117 21 15	1.5	.7	5.0	>2.00	500	N	N	N	70
SVK6C	37 11 21	117 21 23	1.0	.5	3.0	2.00	500	N	N	N	50
SVK7C	37 10 18	117 23 15	5.0	1.0	5.0	2.00	1,000	N	N	N	50
SVK8C	37 10 11	117 23 9	3.0	3.0	10.0	>2.00	1,000	N	N	N	50
SVK9C	37 10 15	117 23 34	5.0	2.0	10.0	>2.00	2,000	N	N	N	150
SVK10C	37 10 17	117 23 45	7.0	3.0	5.0	>2.00	2,000	N	N	N	70

Table 5. - - Analyses of heavy-mineral concentrate samples collected from the Little Sand Spring Wilderness Area, Inyo County, California--Continued

Sample	Ba-ppm s	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s
IV239	300	<5.0	100	N	15.0	100	10.0	>2,000	N	<50.0	N
IV240	3,000	N	N	N	10.0	50	<10.0	1,500	N	50.0	10
IV241	200	N	N	N	20.0	300	10.0	2,000	20.0	70.0	20
IV242	200	N	N	N	15.0	150	<10.0	2,000	10.0	50.0	10
IV243	200	N	N	N	15.0	150	<10.0	2,000	15.0	50.0	10
IV244	150	N	N	N	20.0	700	10.0	>2,000	30.0	50.0	50
IV245	200	N	N	N	15.0	100	10.0	2,000	<10.0	50.0	N
IV246	300	N	N	N	20.0	1,000	10.0	1,500	10.0	50.0	50
IV247	200	N	N	N	20.0	300	15.0	>2,000	20.0	70.0	15
IV248	100	N	N	N	20.0	100	N	>2,000	30.0	100.0	N
IV249	100	N	N	N	20.0	200	10.0	>2,000	30.0	70.0	15
IV250	1,000	N	N	N	20.0	100	15.0	>2,000	30.0	50.0	N
IV251	150	N	N	N	20.0	70	<10.0	>2,000	30.0	70.0	N
IV252	150	N	N	N	20.0	700	10.0	2,000	30.0	70.0	50
IV253	500	N	N	N	20.0	100	<10.0	>2,000	50.0	70.0	N
IV254	1,500	N	N	N	20.0	100	20.0	2,000	15.0	<50.0	20
IV255	200	N	N	N	20.0	150	15.0	2,000	20.0	50.0	10
IV256	150	N	N	N	20.0	200	10.0	1,500	30.0	50.0	20
IV257	150	N	N	N	15.0	200	<10.0	2,000	20.0	70.0	10
IV258	200	N	N	N	20.0	100	<10.0	2,000	10.0	50.0	10
IV259	>10,000	N	N	N	50.0	300	15.0	1,500	20.0	100.0	50
IV260	300	<5.0	N	N	15.0	100	<10.0	1,500	N	<50.0	30
IV261	>10,000	N	<20	N	N	70	<10.0	500	N	70.0	10
IV262	5,000	N	N	N	20.0	150	30.0	>2,000	30.0	70.0	20
IV263	10,000	N	N	N	15.0	100	<10.0	1,500	<10.0	<50.0	15
IV264	3,000	N	N	N	10.0	200	10.0	1,000	<10.0	50.0	20
IV265	1,500	N	N	N	30.0	1,000	10.0	2,000	30.0	100.0	70
IV267	1,000	N	N	N	20.0	100	20.0	2,000	<10.0	50.0	N
IV268	500	N	N	N	20.0	100	10.0	>2,000	15.0	70.0	N
IV269	2,000	N	<20	N	10.0	70	10.0	1,000	<10.0	100.0	10
IV270	2,000	<5.0	<20	N	10.0	70	<10.0	1,000	30.0	150.0	N
IV271	>10,000	N	N	N	20.0	100	10.0	2,000	15.0	100.0	10
IV272	>10,000	N	N	N	20.0	70	<10.0	2,000	15.0	100.0	N
IV273	>10,000	N	N	N	30.0	1,500	30.0	1,000	<10.0	150.0	300
IV275	200	N	N	N	20.0	100	<10.0	1,500	<10.0	70.0	10
SVK1C	100	N	N	N	N	20	N	1,000	N	150.0	20
SVK2C	500	<2.0	N	N	N	150	N	700	N	150.0	20
SVK3C	1,500	<2.0	N	N	10.0	200	<10.0	700	N	150.0	50
SVK4C	700	<2.0	N	N	10.0	300	15.0	500	N	150.0	70
SVK5C	700	<2.0	N	N	N	100	N	500	N	50.0	30
SVK6C	500	<2.0	200	N	N	20	N	300	N	<50.0	150
SVK7C	200	<2.0	N	N	N	300	N	500	N	150.0	30
SVK8C	200	<2.0	N	N	10.0	500	N	700	N	200.0	150
SVK9C	700	<2.0	100	N	10.0	200	N	2,000	N	300.0	30
SVK10C	300	<2.0	N	N	15.0	300	N	500	N	100.0	150

Table 5. - - Analyses of heavy-mineral concentrate samples collected from the Little Sand Spring Wilderness Area, Inyo County, California--Continued

Sample	Pb-ppm s	Sb-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s
IV239	500	N	200.0	N	500	N	1,000	N	<200
IV240	100	N	30.0	500	300	N	500	N	200
IV241	200	N	70.0	200	700	N	1,000	N	N
IV242	200	N	100.0	200	500	N	700	N	<200
IV243	300	N	200.0	500	500	N	700	N	<200
IV244	150	N	200.0	500	700	N	1,000	N	200
IV245	200	N	N	500	500	N	700	N	<200
IV246	150	N	100.0	N	500	N	1,500	N	N
IV247	300	N	70.0	200	700	N	1,000	N	<200
IV248	100	N	100.0	N	700	N	1,000	N	<200
IV249	300	N	100.0	N	700	N	1,500	N	500
IV250	100	N	100.0	500	1,000	N	1,000	N	<200
IV251	70	N	100.0	N	1,000	N	1,500	N	<200
IV252	150	N	100.0	200	700	N	1,500	N	<200
IV253	70	N	70.0	N	700	N	1,000	N	N
IV254	100	N	70.0	200	500	N	700	N	N
IV255	100	N	100.0	N	500	N	1,000	N	<200
IV256	100	N	70.0	N	700	N	1,000	N	<200
IV257	150	N	70.0	200	700	N	700	N	<200
IV258	70	N	300.0	200	700	N	700	N	<200
IV259	300	N	70.0	1,500	700	N	700	N	N
IV260	100	N	100.0	N	500	N	1,500	N	<200
IV261	100	N	N	3,000	200	N	300	N	N
IV262	200	N	150.0	500	500	N	1,000	N	N
IV263	200	N	50.0	700	500	N	1,000	N	300
IV264	200	N	<20.0	700	200	N	700	N	N
IV265	70	N	100.0	200	300	N	700	N	N
IV267	150	N	1,500.0	200	700	N	1,000	N	500
IV268	100	N	100.0	200	700	N	1,000	N	N
IV269	200	N	<20.0	500	200	N	500	N	N
IV270	300	N	70.0	200	300	N	500	<500	N
IV271	30	200	20.0	2,000	500	N	500	N	N
IV272	30	1,000	20.0	700	700	N	500	N	300
IV273	70	N	50.0	500	500	N	500	N	N
IV275	200	N	200.0	200	700	N	1,000	N	300
SVK1C	N	N	N	200	200	N	500	N	500
SVK2C	N	N	20.0	200	200	N	700	N	N
SVK3C	100	N	20.0	300	200	N	500	N	N
SVK4C	30	N	N	200	150	N	500	N	N
SVK5C	N	N	N	200	100	N	300	N	N
SVK6C	N	N	N	200	150	N	300	N	N
SVK7C	N	N	N	N	100	1,000	700	N	N
SVK8C	N	N	50.0	N	200	N	1,000	N	1,000
SVK9C	20	N	30.0	200	500	<100	1,000	N	500
SVK10C	20	N	N	N	200	N	500	N	N

Table 5. - - Analyses of heavy-mineral concentrate samples collected from the Little Sand Spring Wilderness Area, Inyo County, California--Continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s
SVK11C	37 10 28	117 24 15	7.0	2.0	5.0	>2.00	5,000	N	N	N	50
SVK13C	37 11 53	117 25 5	2.0	1.5	10.0	>2.00	1,500	N	N	N	50
SVK14C	37 12 18	117 24 1	7.0	1.5	15.0	>2.00	2,000	N	N	N	100
IV446C	37 14 43	117 23 17	5.0	.7	20.0	>2.00	700	N	N	N	20
IV447C	37 14 10	117 23 43	5.0	.7	20.0	>2.00	1,500	N	N	N	30
IV448C	37 13 37	117 24 38	2.0	1.0	5.0	>2.00	700	N	N	N	30
IV449C	37 14 11	117 25 52	5.0	1.5	7.0	>2.00	3,000	20	N	150	20
IV450C	37 14 18	117 27 41	7.0	.5	20.0	>2.00	1,000	N	N	N	30
IV451C	37 13 37	117 28 35	.7	.5	30.0	>2.00	700	N	N	N	20
IV452C	37 13 19	117 28 18	1.5	.5	30.0	>2.00	700	N	N	N	30
IV453C	37 13 0	117 28 44	2.0	15.0	20.0	>2.00	700	N	N	N	30
IV454C	37 12 25	117 28 38	2.0	15.0	20.0	>2.00	700	N	N	N	50
IV455C	37 12 25	117 27 34	.5	.2	30.0	>2.00	500	N	N	N	20
IV456C	37 12 27	117 27 35	1.0	.3	50.0	>2.00	1,500	N	N	N	<20
IV457C	37 11 57	117 27 22	1.0	.3	30.0	>2.00	500	N	N	N	<20
IV458C	37 6 0	117 27 28	.5	1.5	30.0	>2.00	300	N	N	N	70
IV459C	37 7 8	117 29 17	2.0	1.0	30.0	2.00	700	N	N	N	70
IV460C	37 12 10	117 26 21	.7	.7	20.0	>2.00	300	N	N	N	<20
IV461C	37 12 5	117 26 20	1.0	5.0	20.0	>2.00	1,000	N	N	N	20
IV462C	37 11 53	117 25 20	1.5	1.5	10.0	>2.00	5,000	N	N	N	20
IV463C	37 12 23	117 23 55	3.0	1.0	10.0	>2.00	2,000	N	N	N	50
IV464C	37 13 18	117 23 9	5.0	1.5	10.0	>2.00	2,000	N	N	N	30
IV465C	37 13 16	117 23 0	2.0	.7	15.0	>2.00	1,500	N	N	N	50
Samples collected from the Little Sand Spring Wilderness Area by the U.S.Bureau of Land Management											
D202130	37 7 8	117 28 52	2.2	1.0	5.6	.49	520	--	--	--	12
D202131	37 8 55	117 26 36	2.8	1.2	2.2	.49	850	--	--	--	22
D202132	37 6 40	117 26 21	2.4	1.0	6.2	.22	600	--	--	--	55
D202134	37 2 40	117 25 22	2.0	1.7	15.0	.14	500	--	--	--	14

Table 5. - - Analyses of heavy-mineral concentrate samples collected from the Little Sand Spring Wilderness Area, Inyo County, California--Continued

Sample	Ba-ppm s	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s
SVK11C	2,000	2.0	N	N	10.0	200	N	1,000	N	200.0	100
SVK13C	700	2.0	N	N	N	100	N	700	N	50.0	10
SVK14C	700	<2.0	N	N	N	100	<10.0	>2,000	N	200.0	10
IV446C	2,000	<2.0	N	N	20.0	30	N	>2,000	N	150.0	N
IV447C	300	<2.0	N	N	20.0	70	<10.0	>2,000	N	150.0	20
IV448C	500	2.0	N	N	10.0	20	10.0	700	N	50.0	15
IV449C	3,000	2.0	N	N	20.0	50	<10.0	>2,000	N	50.0	15
IV450C	2,000	N	N	N	20.0	70	20.0	>2,000	50.0	70.0	10
IV451C	5,000	<2.0	N	N	N	20	10.0	>2,000	N	50.0	N
IV452C	5,000	N	N	N	15.0	20	10.0	>2,000	30.0	100.0	N
IV453C	<50	N	N	N	N	50	N	700	N	50.0	N
IV454C	<50	<2.0	N	N	N	70	N	100	50.0	<50.0	N
IV455C	>10,000	N	N	N	N	<20	N	>2,000	N	50.0	N
IV456C	3,000	N	N	N	10.0	<20	N	>2,000	N	<50.0	N
IV457C	>10,000	N	N	N	N	<20	<10.0	>2,000	N	70.0	N
IV458C	>10,000	2.0	N	N	N	50	<10.0	700	70.0	N	10
IV459C	7,000	2.0	N	N	10.0	30	N	700	N	<50.0	15
IV460C	7,000	<2.0	N	N	10.0	20	10.0	>2,000	N	<50.0	N
IV461C	500	2.0	N	N	10.0	30	<10.0	1,000	N	70.0	N
IV462C	>10,000	2.0	N	N	10.0	<20	<10.0	2,000	N	N	15
IV463C	700	N	N	N	20.0	100	<10.0	>2,000	N	300.0	10
IV464C	1,000	N	N	N	N	100	<10.0	2,000	N	<50.0	15
IV465C	1,000	N	N	N	20.0	70	N	2,000	N	300.0	N
Samples collected from the Little Sand Spring Wilderness Area by the U.S.Bureau of Land Management--Continued											
D202130	2,100	2.5	--	--	7.6	32	5.8	120	<2.0	35.0	13
D202131	800	2.6	--	--	9.7	57	4.8	240	2.4	76.0	39
D202132	650	2.2	--	--	7.7	34	11.0	64	2.3	21.0	25
D202134	4,900	<2.0	--	--	7.6	39	9.8	60	2.6	7.2	24

Table 5. - - Analyses of heavy-mineral concentrate samples collected from the Little Sand Spring Wilderness Area, Inyo County, California--Continued

Sample	Pb-ppm s	Sb-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s
SVK11C	150	N	<20.0	200	150	N	700	N	N
SVK13C	50	N	100.0	N	300	N	1,000	N	N
SVK14C	500	N	>2,000.0	N	300	N	1,500	N	N
IV446C	1,500	N	N	500	200	N	300	N	700
IV447C	100	N	N	500	300	N	700	N	1,000
IV448C	N	N	N	200	100	N	500	N	500
IV449C	50	N	N	N	200	N	1,000	<500	200
IV450C	N	N	N	N	500	N	1,000	N	2,000
IV451C	50	N	N	500	150	N	500	N	1,500
IV452C	200	N	N	700	300	<100	500	N	500
IV453C	150	N	N	N	150	N	100	N	N
IV454C	150	N	N	N	100	100	70	N	200
IV455C	100	N	N	1,500	150	N	200	N	N
IV456C	500	N	N	700	200	N	200	N	500
IV457C	50	N	N	1,000	200	N	200	N	200
IV458C	1,500	N	N	1,000	200	N	500	N	300
IV459C	50	N	N	700	150	N	500	N	N
IV460C	300	N	N	1,000	200	100	300	N	1,500
IV461C	150	N	N	300	150	N	300	N	1,500
IV462C	N	N	N	700	100	N	1,000	700	N
IV463C	N	N	700.0	N	300	N	2,000	N	N
IV464C	N	N	50.0	N	200	N	1,500	N	N
IV465C	N	N	50.0	200	200	N	700	N	N
Samples collected from the Little Sand Spring Wilderness Area by the U.S.Bureau of Land Management--Continued									
D202130	17	--	9.3	530	59	--	40	47	--
D202131	32	--	12.0	410	47	--	79	72	--
D202132	28	--	<9.3	500	130	--	33	76	--
D202134	17	--	<9.3	440	74	--	31	73	--

Table 6. - - Analyses of rock samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s	Be-ppm s
IV263R	37 6 22	117 28 10	15.00	.10	.30	.003	500	N	1,000	N	50	100	10.0
IV399RA	37 6 14	117 26 51	5.00	.50	20.00	.050	70	5.0	N	N	50	20	N
IV399RB	37 6 14	117 26 51	1.50	>10.00	>20.00	.300	200	3.0	N	N	70	700	N
IV399RR	37 6 14	117 26 51	.70	5.00	>20.00	.050	200	50.0	N	N	20	20	N
IV402R	37 6 3	117 27 37	.20	.20	.70	.015	150	N	N	N	20	200	<1.0
IV402RA	37 6 15	117 27 20	.10	5.00	20.00	.002	5,000	2.0	N	N	<10	20	50.0
IV402RB	37 6 15	117 27 20	.07	.50	15.00	.007	2,000	3.0	N	N	<10	<20	100.0
IV402RC	37 6 15	117 27 20	1.00	.50	.10	.100	150	<.5	N	N	50	<20	3.0
IV402RD	37 6 15	117 27 20	1.50	.50	.30	.150	300	N	N	N	20	300	3.0
IV402RE	37 6 15	117 27 20	.70	10.00	15.00	.010	1,000	<.5	N	N	70	<20	2.0
IV402RF	37 6 14	117 27 15	1.50	.30	.50	.200	700	<.5	N	N	<10	300	3.0
IV402RG	37 6 20	117 27 19	1.00	.30	.30	.150	200	.5	N	N	10	300	3.0
IV402RH	37 6 20	117 27 21	37.00	.30	.30	.150	200	<.5	N	N	20	300	3.0
IV403RA	37 12 55	117 27 10	1.50	.30	1.00	.200	200	5.0	N	N	10	1,500	2.0
IV403RB	37 12 55	117 27 10	1.50	.50	.30	.300	100	70.0	N	N	200	700	2.0
IV403RD	37 12 55	117 27 10	1.50	.20	.30	.100	100	700.0	N	N	100	700	1.5
IV403RE	37 12 55	117 27 10	2.00	.30	2.00	.200	300	50.0	N	N	100	1,000	2.0
IV403RF	37 12 55	117 27 10	1.50	.03	.20	.007	50	3,000.0	N	15	70	70	<1.0
IV403RR	37 12 55	117 27 10	.50	.02	<.05	.002	10	1,500.0	N	N	20	70	<1.0
IV404R	37 12 15	117 28 7	7.00	>10.00	10.00	.300	1,500	N	N	N	N	2,000	N
IV404RB	37 12 15	117 28 7	2.00	.10	.70	.002	20	300.0	N	N	30	100	N
IV404RC	37 12 15	117 28 7	2.00	.15	.20	.030	150	500.0	N	N	50	<20	N
IV404RD	37 12 15	117 28 7	7.00	.05	10.00	<.002	10	30.0	N	N	30	30	N
IV404RE	37 12 15	117 28 7	5.00	2.00	2.00	.700	200	50.0	N	N	500	500	<5.0
IV404RF	37 12 15	117 28 7	15.00	.30	7.00	.500	500	200.0	N	N	70	700	<5.0
IV404RG	37 12 15	117 28 7	15.00	.10	.20	.010	150	200.0	<200	N	20	<20	N
IV404RH	37 12 15	117 28 7	5.00	1.50	.50	1.000	300	5.0	N	N	1,000	500	<5.0
IV404RJ	37 12 15	117 28 7	20.00	.10	5.00	.020	70	1,000.0	<200	N	100	70	N
IV404RL	37 12 15	117 28 7	15.00	10.00	20.00	.100	5,000	200.0	N	N	20	50	10.0
IV404RM	37 12 15	117 28 7	>20.00	.50	20.00	.002	50	10.0	N	N	10	N	N
IV405R	37 12 39	117 28 50	5.00	2.00	2.00	1.000	70	2.0	N	N	70	1,000	N
IV405RA	37 12 42	117 28 43	1.00	>10.00	>20.00	.030	200	1.5	N	N	100	<20	<5.0
IV405RB	37 12 42	117 28 43	15.00	3.00	7.00	.010	700	15.0	N	N	70	N	N
IV405RD	37 12 36	117 28 38	20.00	.20	5.00	.010	150	.5	N	N	30	<20	N
IV405RE	37 12 29	117 28 32	15.00	.30	3.00	.100	100	<.5	N	N	50	<20	N
IV405RF	37 12 24	117 28 22	7.00	10.00	10.00	.500	300	1.0	N	N	15	700	N
IV406R	37 12 25	117 28 22	2.00	1.00	2.00	.500	200	.5	N	N	20	1,000	<5.0
IV406RA	37 12 25	117 28 22	2.00	1.50	>20.00	.500	1,500	<.5	N	N	10	100	N
IV406RB	37 12 21	117 28 28	2.00	10.00	>20.00	.500	1,000	.5	N	N	30	100	7.0
IV406RC	37 12 31	117 28 20	20.00	.70	>20.00	.100	>5,000	N	N	N	N	<20	N
IV406RD	37 12 31	117 28 20	5.00	3.00	>20.00	.200	2,000	<.5	N	N	N	100	<5.0
IV406RE	37 12 31	117 28 20	2.00	5.00	3.00	.500	300	.5	N	N	20	1,000	N
IV406RF	37 12 31	117 28 20	1.50	>10.00	>20.00	.100	500	<.5	N	N	30	50	N
IV406RG	37 12 39	117 28 17	3.00	>10.00	>20.00	.300	2,000	.7	N	N	50	700	N
IV406RH	37 12 42	117 28 17	10.00	.15	2.00	.030	300	5,000.0	N	N	50	1,000	N

Table 6. - - Analyses of rock samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sn-ppm s	Sr-ppm s
IV263R	N	N	10	N	10	20	50	N	50	<10	150	N	N
IV399RA	N	N	N	20	30	N	N	N	5	200	N	N	100
IV399RB	N	N	5	150	30	N	N	N	20	200	N	N	100
IV399RR	N	N	5	20	200	N	N	N	7	1,000	300	N	200
IV402R	N	N	<5	<10	5	N	N	N	N	<10	N	N	N
IV402RA	N	N	<5	N	10	N	30	N	N	<10	N	N	500
IV402RB	N	N	<5	15	10	N	5	N	N	100	N	N	<100
IV402RC	N	N	<5	<10	7	70	5	50	N	10	N	N	N
IV402RD	N	N	<5	<10	5	100	<5	50	N	70	N	N	<100
IV402RE	N	N	<5	10	7	N	N	N	<5	50	N	N	<100
IV402RF	N	N	<5	<10	5	100	<5	50	N	100	N	N	<100
IV402RG	N	N	<5	<10	7	70	<5	50	N	100	N	N	<100
IV402RH	N	N	<5	<10	5	100	<5	70	N	100	N	N	<100
IV403RA	N	N	7	10	7	100	N	N	5	100	N	N	1,000
IV403RB	N	N	7	<10	50	100	<5	<20	5	1,500	N	N	200
IV403RD	N	N	7	<10	300	50	15	N	<5	15,000	N	N	1,500
IV403RE	N	N	10	<10	15	70	N	N	5	150	N	N	300
IV403RF	15	N	<5	<10	2,000	N	20	N	<5	>20,000	100	N	>5,000
IV403RR	N	N	<5	<10	1,000	N	50	N	N	20,000	150	N	1,500
IV404R	N	N	20	50	7	70	N	N	10	100	N	N	N
IV404RB	N	N	N	<10	500	N	100	N	N	3,000	N	N	N
IV404RC	N	N	10	<10	1,000	N	10	N	N	2,000	N	N	N
IV404RD	N	N	N	10	100	N	70	N	N	70	N	N	N
IV404RE	N	N	30	10	500	150	10	N	10	1,500	N	N	500
IV404RF	N	N	20	<10	1,500	N	20	N	5	15,000	N	N	700
IV404RG	N	N	10	<10	2,000	N	10	N	N	3,000	N	N	N
IV404RH	N	N	20	10	1,000	200	70	<20	5	5,000	N	N	300
IV404RJ	N	N	N	10	500	N	15	N	N	>20,000	N	N	N
IV404RL	N	N	20	20	2,000	N	10	N	10	70	N	N	100
IV404RM	N	N	30	<10	5,000	N	20	N	N	70	N	N	100
IV405R	N	N	10	150	20	50	N	N	30	20	N	N	200
IV405RA	N	N	N	<10	<5	50	N	N	N	N	N	N	100
IV405RB	500	N	50	N	>20,000	N	50	N	5	20	N	20	N
IV405RD	N	N	30	<10	5,000	N	100	N	N	N	N	N	200
IV405RE	N	N	30	10	200	N	15	N	100	N	N	N	100
IV405RF	N	N	20	150	150	100	7	N	50	N	N	N	700
IV406R	N	N	N	10	50	200	N	N	5	20	N	N	1,000
IV406RA	N	N	N	50	10	20	N	N	10	50	N	N	200
IV406RB	N	N	5	<10	30	200	N	N	5	15	N	N	1,500
IV406RC	N	N	N	20	7	N	N	N	5	N	N	70	100
IV406RD	N	N	10	20	50	N	N	N	10	N	N	N	300
IV406RE	N	N	N	<10	10	100	N	N	N	20	N	N	1,000
IV406RF	N	N	5	20	50	50	N	N	5	10	N	N	200
IV406RG	N	N	5	30	10	N	N	N	10	10	N	N	1,000
IV406RH	10	N	N	20	1,000	N	300	N	5	>20,000	100	N	500

Table 6. - - Analyses of rock samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm inst	As-ppm aa	Zn-ppm aa	Cd-ppm aa	Bi-ppm aa	Sb-ppm aa
IV263R	100	200	15	500	N	N	.29	200.00	120	.0	0	0
IV399RA	50	<50	N	N	N	<.05	>10.00	25.00	25	.50	N	22
IV399RB	2,000	N	50	N	N	N	>10.00	10.00	25	1.40	N	12
IV399RR	30	N	15	N	N	<.05	.06	15.00	60	7.00	N	66
IV402R	15	N	10	N	N	N	.08	10.00	5	.50	N	1
IV402RA	15	<50	30	N	N	.20	.02	N	35	2.50	N	N
IV402RB	10	N	15	300	N	.20	.06	N	340	3.60	N	N
IV402RC	15	N	20	N	N	N	.02	5.00	10	.30	N	N
IV402RD	15	N	30	N	N	N	<.02	.02	30	<.02	N	N
IV402RE	10	N	<10	500	N	N	.04	20.00	790	1.00	N	7
IV402RF	20	N	30	N	N	N	<.02	N	30	<.02	N	N
IV402RG	15	N	20	N	N	N	.02	N	15	.20	N	N
IV402RH	15	N	20	N	N	N	<.02	N	15	<.02	N	N
IV403RA	30	N	10	N	N	N	.02	N	20	N	N	N
IV403RB	70	N	10	1,000	N	<.05	.04	N	1,000	.60	N	N
IV403RD	30	N	10	1,500	N	.25	>10.00	10.00	2,400	1.90	2	N
IV403RE	70	N	15	200	N	N	.24	5.00	190	4.80	N	N
IV403RF	10	N	<10	7,000	N	9.60	>10.00	20.00	14,000	5.50	15	55
IV403RR	50	N	<10	300	N	.30	>10.00	35.00	310	2.70	N	90
IV404R	70	N	10	N	N	N	<.02	N	80	N	N	N
IV404RB	300	70	N	1,500	N	1.40	>4.50	110.00	1,600	8.80	N	8
IV404RC	20	N	10	2,000	N	1.70	.64	15.00	2,000	1.60	N	N
IV404RD	50	200	N	N	N	<.05	.24	20.00	130	6.70	N	14
IV404RE	200	<50	20	1,000	N	<.05	.18	25.00	1,800	23.00	N	N
IV404RF	100	100	15	2,000	N	.15	.60	60.00	1,200	16.00	N	2
IV404RG	300	70	N	1,500	N	.15	.84	40.00	900	13.00	N	8
IV404RH	500	<50	20	500	N	<.05	.50	40.00	350	2.20	N	2
IV404RJ	70	N	30	1,000	N	.80	.70	120.00	850	22.00	N	16
IV404RL	200	N	N	300	N	<.05	>4.50	<5.00	450	33.00	N	N
IV404RM	200	50	20	N	N	<.05	>4.50	170.00	200	5.00	N	5
IV405R	100	N	50	N	N	N	.02	N	30	.10	N	N
IV405RA	20	N	30	N	N	N	.06	<5.00	<5	.10	N	N
IV405RB	20	N	10	N	N	.75	.06	15.00	90	.50	700	3
IV405RD	50	N	N	N	N	N	.10	150.00	15	.10	4	14
IV405RE	100	N	20	N	N	<.05	.06	50.00	35	N	<2	N
IV405RF	100	N	50	N	N	N	.02	15.00	10	.10	N	N
IV406R	50	N	20	N	N	<.05	<.02	<5.00	15	.10	N	N
IV406RA	20	N	30	N	N	N	<.02	5.00	50	.80	N	N
IV406RB	30	N	50	N	N	N	.02	N	10	.10	N	N
IV406RC	70	N	50	N	N	N	<.02	N	10	.10	N	N
IV406RD	70	N	20	N	N	N	.02	N	90	.10	N	N
IV406RE	30	N	10	N	N	N	<.02	N	10	.10	N	N
IV406RF	15	N	20	N	N	N	<.02	N	30	.10	N	N
IV406RG	20	N	10	200	N	N	.02	N	45	.10	N	N
IV406RH	70	N	N	200	N	1.90	>10.00	50.00	200	5.00	4	100

Table 6. - - Analyses of rock samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s	Be-ppm s
IV406RI	37 12 42	117 28 17	2.00	.50	3.00	.300	200	30.0	N	N	70	1,500	N
IV406RJ	37 12 44	117 28 17	10.00	10.00	>20.00	.070	>5,000	5.0	N	N	10	20	15.0
IV406RK	37 12 43	117 28 21	7.00	2.00	15.00	1.000	500	5.0	N	N	20	1,500	<5.0
IV406RL	37 12 43	117 28 21	3.00	1.50	3.00	.010	1,500	1.0	N	N	10	700	10.0
IV406RM	37 12 46	117 28 18	10.00	2.00	20.00	.300	5,000	1.5	N	N	10	1,500	5.0
IV408R	37 12 10	117 27 50	2.00	.50	3.00	.300	200	30.0	N	N	20	2,000	<5.0
IV408RA	37 12 10	117 27 41	2.00	.50	3.00	.300	200	2.0	N	N	10	1,500	N
IV408RB	37 12 10	117 27 41	2.00	.50	2.00	.500	150	10.0	N	N	30	2,000	N
IV408RC	37 12 14	117 27 37	2.00	.50	2.00	.500	150	1.0	N	N	30	2,000	<5.0
IV408RD	37 12 14	117 27 37	.07	.15	>20.00	.020	200	1.5	N	N	N	50	N
IV408RE	37 12 16	117 27 29	3.00	.50	1.00	.500	150	5.0	N	N	20	2,000	N
IV408RG	37 12 18	117 27 26	2.00	.30	1.00	.200	200	3.0	N	N	30	1,000	N
IV406RI	37 12 21	117 27 23	2.00	.50	.70	.500	300	1.5	N	N	30	1,000	N
IV408RJ	37 12 21	117 27 23	2.00	.50	.70	.300	300	.5	N	N	30	1,000	N
IV408RK	37 12 25	117 27 21	5.00	.50	.50	.300	200	2.0	N	N	70	1,000	N
IV408RL	37 12 25	117 27 21	.50	.20	5.00	.050	100	1.0	N	N	30	>5,000	N
IV408RM	37 12 25	117 27 21	1.00	.10	>20.00	.020	500	10.0	N	N	20	700	N
IV408RN	37 12 25	117 27 21	.50	.10	>20.00	.030	1,000	1.0	N	N	10	300	N
IV408RO	37 12 25	117 27 21	15.00	.20	20.00	.100	1,000	.7	N	N	50	>5,000	<5.0
IV408RP	37 12 25	117 27 21	2.00	.50	10.00	.150	300	.7	N	N	50	1,000	N
IV408RQ	37 12 25	117 27 21	3.00	.50	2.00	.300	200	1.5	N	N	70	1,000	N
SV324R1	37 13 13	117 26 30	>20.00	.30	.70	.200	100	N	N	N	300	20	1.0
SV324R2	37 13 13	117 26 30	5.00	10.00	15.00	.070	700	<.5	N	N	70	50	N
SV324R3	37 13 13	117 26 40	2.00	.50	1.00	.300	200	<.5	N	N	50	1,000	2.0
SV324R4	37 13 17	117 26 32	1.50	.10	.30	.100	70	N	N	N	20	200	1.5
SV324R5	37 12 52	117 26 31	3.00	.30	.50	.200	150	N	N	N	20	1,000	1.0
SV324R6	37 12 51	117 26 28	5.00	.50	.50	.500	150	3.0	N	N	100	1,500	1.0
SV324R7	37 12 54	117 26 25	.10	.02	.05	.007	50	N	N	N	30	100	<1.0
SV324R8	37 12 51	117 26 28	2.00	.50	<.05	.300	20	.5	N	N	100	300	2.0
SV325R1	37 12 50	117 28 22	1.00	10.00	5.00	.020	200	N	N	N	70	N	N
SV325R2	37 12 50	117 28 22	.50	10.00	15.00	.015	700	N	N	N	50	N	N
SV326R1	37 12 59	117 28 3	5.00	.70	1.00	.200	150	<.5	N	N	20	1,500	1.0
SV326R2	37 12 59	117 28 3	.30	.03	.07	.010	20	2.0	N	N	20	200	<1.0
SV327R1	37 13 22	117 27 40	2.00	.30	1.00	.200	150	N	N	N	10	1,000	2.0
SV328R1	37 13 19	117 27 31	1.00	.15	.70	.100	100	N	N	N	10	1,000	1.5
SV329R1	37 13 31	117 27 13	5.00	36.00	1.00	.300	300	<.5	N	N	20	700	3.0
SV330R1	37 12 37	117 26 33	5.00	.70	2.00	.500	200	.7	N	N	70	1,500	3.0
SV331R1	37 12 34	117 26 0	3.00	10.00	5.00	.100	1,000	N	N	N	70	200	N
SV331R2	37 12 34	117 26 0	3.00	.30	.50	.200	150	N	N	N	30	1,000	5.0
SV331R3	37 12 34	117 26 0	.70	3.00	2.00	.015	100	N	N	N	50	70	<1.0
SV332R1	37 12 19	117 27 25	2.00	.20	1.00	.200	100	N	N	N	20	1,000	2.0

Table 6. - - Analyses of rock samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sn-ppm s	Sr-ppm s
IV406RI	N	N	5	<10	15	200	10	N	7	700	N	N	1,000
IV406RJ	N	N	30	20	7	N	N	N	15	100	N	N	200
IV406RK	N	N	15	30	70	150	N	<20	15	100	N	N	1,500
IV406RL	N	N	20	<10	100	N	N	N	5	30	N	N	200
IV406RM	N	N	10	50	10	N	N	N	7	20	N	30	500
IV408R	N	N	N	<10	10	100	N	N	N	30	N	N	700
IV408RA	N	N	5	<10	5	100	N	N	5	70	N	N	700
IV408RB	N	N	N	10	300	100	N	N	5	50	N	N	700
IV408RC	N	N	N	10	7	150	N	N	N	50	N	N	>5,000
IV408RD	N	N	N	N	5	N	N	N	N	50	N	N	1,000
IV408RE	15	N	5	10	50	150	10	N	N	50	N	N	700
IV408RG	N	N	15	<10	3,000	70	15	N	5	70	N	N	100
IV408RI	N	N	5	<10	20	100	<5	N	N	20	N	N	500
IV408RJ	N	N	5	10	10	100	<5	N	5	10	N	N	500
IV408RK	N	N	10	<10	20	100	50	N	5	100	N	N	500
IV408RL	N	N	N	N	20	N	N	N	N	10	N	N	1,000
IV408RM	N	N	N	15	7,000	N	N	N	5	50	N	N	100
IV408RN	N	N	5	<10	50	100	N	N	5	20	N	N	200
IV408RO	N	N	50	<10	50	N	N	N	5	50	N	N	500
IV408RP	N	N	10	<10	10	100	N	N	5	20	N	N	100
IV408RQ	N	N	10	<10	7	70	N	N	N	20	N	N	500
SV324P1	N	N	20	70	1,000	N	20	N	50	30	N	N	N
SV324R2	N	N	N	50	15	N	N	N	20	20	N	N	100
SV324R3	N	N	N	10	20	150	N	20	20	N	N	N	300
SV324R4	N	N	N	<10	30	100	N	<20	50	20	N	N	200
SV324R5	N	N	N	<10	10	150	N	<20	N	50	N	N	500
SV324R6	N	N	10	10	500	70	N	<20	N	50	N	N	700
SV324R7	N	N	N	10	<5	N	N	N	N	N	N	N	N
SV324R8	N	N	N	<10	7	50	N	N	N	100	N	N	N
SV325R1	N	N	N	10	10	N	N	N	N	N	N	N	N
SV325R2	N	N	N	N	<5	N	N	N	10	N	N	N	N
SV326P1	N	N	10	10	<5	70	N	N	20	20	N	N	1,000
SV326R2	N	N	N	<10	30	N	N	N	30	70	N	N	N
SV327R1	N	N	N	N	<5	N	N	N	15	20	N	N	1,500
SV328R1	N	N	N	<10	<5	N	N	N	20	20	N	N	700
SV329R1	N	N	10	10	100	70	20	N	20	50	N	N	700
SV330R1	N	N	5	10	10	70	5	N	20	30	N	N	1,000
SV331R1	N	N	N	50	20	50	N	N	50	N	N	N	100
SV331R2	N	N	N	<10	<5	70	N	<20	N	50	N	N	500
SV331R3	N	N	N	<10	10	N	N	N	10	N	N	N	N
SV332R1	N	N	N	<10	5	30	N	N	50	20	N	N	700

Table 6. - - Analyses of rock samples collected from the Little Sand Spring Wilderness Study Area, Inyo County, California.--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm inst	As-ppm aa	Zn-ppm aa	Cd-ppm aa	Bi-ppm aa	Sb-ppm aa
IV406RI	50	N	20	N	N	N	.02	N	20	.20	N	N
IV406RJ	20	N	10	<200	N	N	<.02	N	10	N	N	N
IV406RK	200	N	50	N	N	N	.02	N	10	.10	N	N
IV406RL	10	N	N	N	N	N	<.02	N	5	N	N	N
IV406RM	50	N	30	N	N	N	<.02	N	10	N	N	N
IV408R	50	N	10	N	N	N	<.02	N	20	N	N	N
IV408RA	30	N	10	N	N	N	.02	N	10	N	N	N
IV408RB	100	N	15	N	N	N	.02	N	5	N	4	N
IV408RC	50	N	20	N	N	N	.10	15.00	10	N	N	N
IV408RD	<10	N	N	N	N	N	<.02	N	<5	.10	N	N
IV408RE	70	N	10	N	N	N	.04	N	35	.20	N	N
IV408RG	50	<50	10	N	N	N	.08	N	10	.10	8	N
IV408RI	50	N	10	N	N	N	.10	N	5	.10	N	N
IV408RJ	50	N	10	N	N	N	.06	N	5	.10	N	N
IV408RK	50	N	10	N	N	N	.28	N	30	.10	<2	N
IV408RL	20	N	N	N	N	N	<.02	N	15	.30	N	N
IV408RM	15	N	10	N	N	N	.08	N	10	.30	N	N
IV408RN	10	N	20	N	N	N	<.02	N	10	.30	N	N
IV408RO	50	50	20	<200	N	N	.24	<5.00	70	.70	N	2
IV408RP	70	N	10	N	N	N	.04	N	5	.20	N	N
IV408RQ	50	N	N	N	N	N	.04	N	35	.60	N	N
SV324R1	50	N	N	N	N	.05	>4.50	N	165	N	6	N
SV324R2	10	N	30	N	N	N	.60	N	30	N	N	N
SV324R3	20	N	20	N	N	N	.60	N	10	N	N	N
SV324R4	10	N	N	N	N	N	.06	N	5	N	N	N
SV324R5	20	N	20	N	N	N	.04	N	10	N	N	N
SV324R6	30	N	10	N	N	N	.14	N	20	N	N	3
SV324R7	15	N	N	N	N	N	.02	N	<5	N	N	N
SV324R8	50	N	N	N	N	N	.04	N	35	N	N	N
SV325R1	15	N	N	N	N	N	.04	N	15	N	N	N
SV325R2	15	N	N	N	N	N	.04	N	5	N	N	N
SV326R1	30	N	N	N	N	N	.02	N	20	N	N	N
SV326R2	20	N	N	N	N	.20	.24	N	135	.40	N	N
SV327R1	20	N	N	N	N	N	.02	N	10	<.10	N	N
SV328R1	15	N	N	N	N	N	.02	N	10	N	N	N
SV329R1	50	N	10	N	N	N	.02	50.00	35	N	N	4
SV330R1	100	N	10	N	N	N	.02	N	10	N	N	N
SV331R1	10	N	15	N	N	N	.06	N	110	N	N	N
SV331R2	20	N	10	N	N	N	<.02	N	10	.10	N	N
SV331R3	15	N	N	N	N	N	.02	N	15	.10	N	N
SV332R1	30	N	N	N	N	N	.60	N	10	.10	N	N