UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Analytical results and sample locality map of rock and stream-sediment samples from the Ferris Mountains Wilderness Study Area (WY-030-407), Carbon County, Wyoming

By

D. E. Detra[1], M. W. Reynolds[2], and T. A. Roemer[1]

Open-File Report 88-415

[1]U.S. Geological Survey, DFC, Box 25046, MS 973, Denver, CO 80225
[2]U.S. Geological Survey, DFC, Box 25046, MS 905, Denver, CO 80225

1988

CONTENTS

ILLUSTRATIONS

TABLES

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 geochemical survey of the Ferris Mountains Wilderness Study Area (WY-030-407), Carbon County, Wyoming.

INTRODUCTION

During 1984 at the request of the U.S. Bureau of Land Management, the U.S. Geological Survey in cooperation with the U.S. Bureau of Mines conducted a mineral resource assessment of the Ferris Mountains Wilderness Study Area (WY-030-407), Carbon County, Wyoming. The assessment included detailed geologic mapping, geochemical sampling of the entire area, and a reconnaissance gravity survey of selected parts of the area. This report presents analytical results of the chemical analyses made by laboratories of the U.S. Geological Survey for rock and stream-sediment samples of the study area. Results of the mineral resource assessment are reported elsewhere (Reynolds and Neubert, 1988).

The Ferris Mountains Wilderness Study Area contains approximately 20,495 acres in the Ferris Mountains, south-central Wyoming (fig. 1). The area is about 1.5 to 4 mi wide and 13.5 mi long, elongate in a general west-northwest direction parallel to the crest of the mountains. The narrow mountain range rises abruptly from the broad valley of the Sweetwater River on the north and from Separation Flats on the south, to elevations of 9,100-10,037 ft along the crest (fig. 1; plate 1). Permanent and intermittent streams drain north, northwest, and south from narrow mountain valleys and small canyons within the study area. Access to the base of the range is by unimproved ranch roads and jeep trails that extend south from Wyoming State Highway 220 north of the area and east and north from U.S. Highway 287 on the west. The rugged, generally wooded mountains within the study area are accessible only by foot.

GENERAL GEOLOGY

Late Archean granite and granodiorite, which contain lenses of older metasedimentary and metavolcanic rock and are intruded by linear dikes of basalt and diorite, support the north and southwest parts of the Ferris Mountains. A succession of sedimentary rocks ranging in age from Cambrian through Tertiary rests unconformably on the Archean crystalline rocks (table 1). Cambrian through Cretaceous rocks are tilted and folded with the Archean rocks: on the north flank and eastern part of the area the strata dip south off the crystalline core of the northern block into a syncline that separates the northern part from the southwestern part of the area. All rocks of the southwestern part are folded anticlinally in two narrow asymmetric folds that trend west-northwest. The more northerly anticline is cored by Archean crystalline rocks, and the southwestern fold is cored by Cambrian strata. Along the base of the steep north flank of the mountains, a zone of normal faults, active during late Tertiary and Quaternary time, displaces Tertiary rocks that rest unconformably on Archean rocks, down on the north against Archean crystalline rocks and Paleozoic strata of the mountain core.

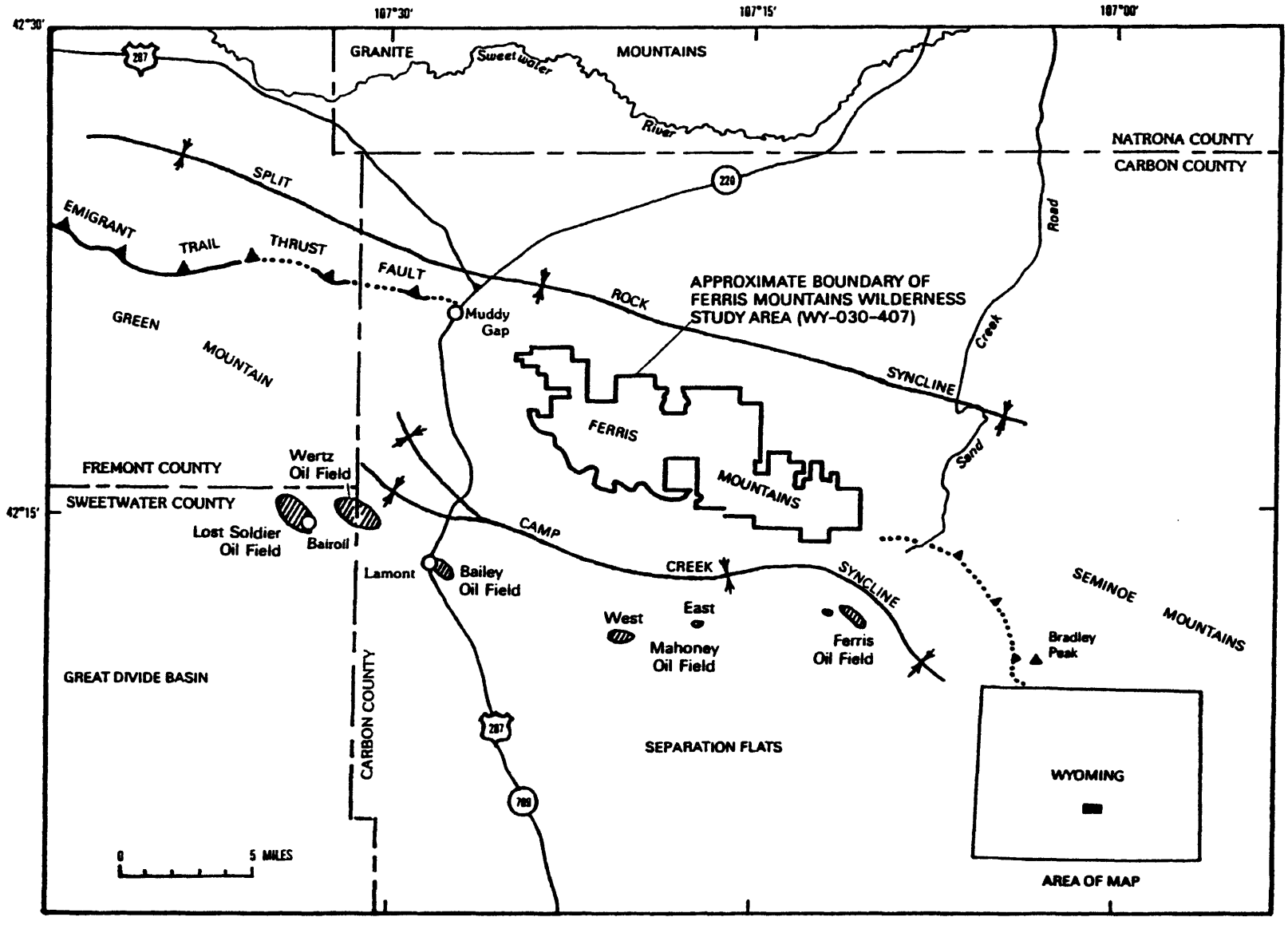

Figure 1. Index map showing location of the Ferris Mountains Wilderness Study Area, Carbon County, Wyoming.

Anomalous concentrations of copper, silver, lead, zinc, and locally gold are present at widely separated localities in the Ferris Mountains Wilderness Study Area. Those concentrations, near the center of the study area and generally east of the eastern boundary, have been prospected in the past, but no mineral production has been established. Limestone and quartzose sandstone are widely distributed in the study area, but have not been exploited. The mineral resource potential for the Ferris Mountains Wilderness Study Area has been summarized by Reynolds and Neubert (1988).

METHODS OF STUDY

Sample Media and Collection

Rock samples

Rock samples were collected from representative rock types, prospect pits and adits, and areas of possible rock alteration to develop information on the distribution of elements in the rocks and mineralized localities. For the study area, 256 rock samples from 204 sites were analyzed.

Stream-sediment samples

Stream-sediment samples contain material representative of rock types exposed in a drainage basin. Most drainage basins in the study area have areas of less than one-half square mile; three basins include 12 square miles. Because of the high relief and short stream segments within the narrow study area, stream beds are generally filled with sand-sized or coarser sediment and contain insufficient fine sediment to obtain adequate panned concentrates for analysis. Sediment samples seived to silt size and finer were used for analysis. Stream-sediment samples from 64 sites were analyzed for the study. Sample localities are shown on plate 1.

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.

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

Sample Analysis

Spectrographic method

The stream-sediment 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 2. 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 from the spectrographic analysis of samples from the Ferris Mountains Wilderness Study Area are listed in columns 4 through 34 of tables 4 and 5.

Chemical methods

Selected samples of both rocks and stream sediments collected from the study area were analyzed using a variety of chemical techniques for gold (Au), arsenic (As), bismuth, (Bi), cadmium (Cd), antimony, (Sb), zinc (Zn), uranium (U), sulfur (S), and for lead (Pb). Stream sediments and rocks were analyzed for Au, As, Bi, Cd, Sb, and Zn by atomic absorption spectroscopy (AA). In addition selected rocks were analyzed for Pb by atomic absorption spectroscopy (AA), U by ultraviolet fluorescence and/or S using a Leco SC-132 automated analyzer. Table 2 provides a listing of lower determination limits and references for the specific methods. Analytical data from the chemical analysis of samples from the Ferris Mountains Wilderness Study Area are listed in columns 35 through 43 in tables 4 and 5.

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, 1977).

DESCRIPTION OF DATA TABLES

Tables 4 and 5 list the results of analyses for the samples of rock and stream sediment, respectively. For the two tables, the data are arranged so that column 1 contains 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 tables 2 or 3. If an element was observed but was below the lowest reporting value, a "less than" symbol (<) appears in the tables in front of the lower limit of determination. If an element was observed but was above the highest reporting value, a "greater than" symbol (>) appears in the tables in front of the upper limit of determination. If an element was not looked for in a sample, two dashes (--) are entered in tables 4 and 5 in place of an analytical value. Because of the formatting used in the computer program that produced tables 4 and 5 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. Analysts did not determine these elements to the accuracy suggested by the extra zeros.

REFERENCES CITED

Centanni, F.A., Ross, A.M., and DeSesa, M.A., 1956, Fluorometric determination of uranium: Analytical Chemistry, v. 28, p. 1651.

Crock, J.G., Briggs, P.H., Jackson, L.L., and Lichte, F.E., 1987, Analytical methods for the analysis of stream sediments and rocks from wilderness study areas: U.S. Geological Survey Open-File Report 87-84, p. 22-28.

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.

LECO, Laboratory Equipment Corporation, Saint Joseph, Michigan, Instruction Manual for Operation of LECO Sulfur Determinators, Form no. 133A.

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

Reynolds, M.W., and Neubert, J.T., 1988, Mineral resources of the Ferris Mountains Wilderness Study Area, arbon County, Wyoming: U.S. Geological Survey Bulletin 1757C, 18 p.

Thompson, C.E., Nakagawa, H.M., and Van Sickle, G.H., 1968, Rapid analysis for gold in geologic materials, in Geological Survey research 1968: U.S. Geological Survey Professional Paper 600-B, p. B130-B132.

VanTrump, George, Jr., and Miesch, A.T., 1977, The U.S. Geological Survey RASS-STATPAC system for management and statistical reduction of geochemical data: Computers and Geosciences, v. 3, p. 475-488.

Viets, J.G., 1978, Determination of silver, bismuth, cadmium, copper, lead, and zinc in geologic materials by atomic absorption spectrometry with tricaprylylmethylammonium chloride: Analytical Chemistry, v. 50, p. 1097-1101.

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

Table 1.--Sequence of geologic units exposed in the Ferris Mountains Wilderness Study Area Carbon County, Wyoming

Era	System or Series	Unit	Thickness in feet	Rock or sediment type
Cenozoic	Quaternary	Surficial deposits		Boulder gravel, pebbly sand, sand, silt; angular rock fragments; rock fragments in silt matrix
	Tertiary	Ogallala Formation		Conglomerate, sandstone, thin siltstone
Mesozoic	Cretaceous	Cody Shale (part)	1,000 (part)	Shale, calcareous, dark gray,
	Cretaceous	Frontier Formation	1,000	Shale in lower part, sandstone in upper part
	Cretaceous	Mowry Shale	350	Siliceous shale, dark gray, local very thin beds of bentonite
	Cretaceous	Thermopolis Shale	235	Shale at base and top; Muddy Sandstone Member near center
	Cretaceous	Cloverly Formation	50-150	Conglomerate, conglomeratic sandstone, and sandstone
	Jurassic	Morrison Formation	150-300	Mudstone, siltstone, sandstone
	Jurassic	Sundance Formation	270	Siltstone, mudstone, sandstone and thin limestone
	Triassic?	Bell Springs Member of Nugget Sandstone	100-300	Siltstone and sandstone, red, pale-orange
	Triassic	Popo Agie and Jelm Formations undivided	350-400	Siltstone, sandstone, mudstone, generally reddish-brown, pale-red
	Triassic	Alcova Limestone	7-12	Limestone, local mudstone
	Triassic	Red Peak Formation	930	Sandstone, siltstone, and some mudstone, pale-reddish-brown
	Triassic-Permian	Goose Egg Formation	280	Siltstone, thin dolostone and limestone; chert nodules; nodules and lenses of gypsum
	Pennsylvanian	Tensleep Sandstone	500-750	Sandstone, thin limestone and dolostone in lower part
Paleozoic	Pennsylvanian-Mississippian	Amsden Formation; Darwin Sandstone Member at base	200-250	Siltstone, mudstone, interbedded limestone; sandstone
	Mississippian	Madison Limestone	300	Limestone, medium-gray medium light gray
	Cambrian	Buck Spring Formation	600	Sandstone and siltstone, reddish-brown, dark olive green
	Cambrian	Flathead Sandstone	70-280	Sandstone and pebbly sandstone, pale-red, pale-reddish-brown
	Late Archean	Diabase and basalt	0-450	Dikes and tabular bodies, dark olive gray, olive black
Archean	Late Archean	Granite and granodiorite		Batholith; pinkish light gray commonly porphyritic
		Schist and hornfels		Metavolcanic and metasedimentary rocks; foliated; rusty brown and brownish gray

TABLE 2.--Limits of determination for the spectrographic analysis of rocks and stream sediments, based on a 10-mg sample

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 3.--Chemical methods used and limits of determination

[AA = atomic absorption; F = fluorometry; and T = titrametric]

Element or constituent determined	Method	Determination limit (micrograms/ gram or ppm)	Reference
Gold (Au)	AA	0.05	Thompson and others, 1968.
Arsenic (As)	AA	5 or 10	Crock and others, 1987
Antimony (Sb)	AA	2	
Zinc (Zn)	AA	5	
Bismuth (Bi)	AA	1	
Cadmium (Cd)	AA	.1	
Lead (Pb)	AA	5	Ward and others, 1969
Sulfur (S)	T	.001%	LECO.
Uranium (U)	F	0.05 or 1	Modification of Centanni and others, 1956.

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING

[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
FRR069	42 14 39	107 23 41	.20	3.00	20.00	.050	1,000	.5	N	N	10	200	<1.0
FRR126	42 17 17	107 19 12	.05	.30	15.00	.003	100	N	N	N	15	70	<1.0
FRR227C	42 19 7	107 22 57	.50	.70	7.00	.010	500	N	N	N	10	1,000	N
FRR023	42 15 20	107 18 34	2.00	1.00	20.00	.200	>5,000	N	N	N	70	100	1.5
FRR008	42 16 27	107 18 41	1.50	.03	.10	.500	70	<.5	N	N	50	1,000	1.0
FRR009	42 16 27	107 18 51	20.00	7.00	10.00	.030	3,000	N	N	N	300	50	7.0
FRR010	42 16 28	107 18 50	1.50	.15	1.00	.100	150	N	N	N	100	200	5.0
FRR017	42 15 44	107 20 52	1.50	.50	.10	.500	50	.7	N	N	150	700	2.0
FRR018	42 16 43	107 20 52	1.00	.50	.07	.500	30	<.5	N	N	150	500	2.0
FRR113	42 17 26	107 18 23	>20.00	.15	2.00	.050	200	.5	N	N	100	200	3.0
FRR223	42 18 12	107 22 49	5.00	1.00	1.50	.300	300	N	N	N	150	1,000	3.0
FRR219	42 16 39	107 23 12	.50	.30	10.00	.150	700	N	N	N	50	5,000	<1.0
FRR028	42 15 53	107 18 49	.15	.07	.30	.050	70	N	N	N	15	700	2.0
FRR032	42 15 55	107 17 14	.05	.05	.15	.050	20	N	N	N	50	300	1.5
FRR033	42 16 18	107 17 21	.07	2.00	5.00	.030	100	N	N	N	15	200	1.5
FRR036	42 16 52	107 17 50	.05	.02	.05	.100	100	N	N	N	30	70	1.0
FRR067	42 14 36	107 13 56	<.05	2.00	5.00	.020	30	N	N	N	10	100	1.0
FRR077	42 14 21	107 12 3	.20	.70	1.50	.100	50	N	N	N	50	200	1.0
FRR080	42 14 27	107 12 38	.10	10.00	15.00	.030	150	N	N	N	30	70	<1.0
FRR092	42 14 32	107 10 30	.20	7.00	7.00	.070	200	N	N	N	50	150	1.0
FRR114	42 17 19	107 18 0	<.05	.05	.05	.200	20	N	N	N	50	50	1.0
FRR118	42 17 48	107 19 11	.15	.02	<.05	.100	20	N	N	N	10	100	<1.0
FRR217	42 17 27	107 22 28	<.05	5.00	5.00	.015	100	N	N	N	10	70	1.5
FRR220	42 17 58	107 23 55	.05	7.00	10.00	.050	150	N	N	N	10	200	1.5
FRR221	42 17 58	107 23 55	<.05	.02	.15	.100	100	N	N	N	30	700	1.0
FRR227A	42 19 8	107 22 57	.50	.03	.20	.200	20	N	N	N	50	20	1.0
FRR003	42 15 13	107 16 29	.15	.50	>20.00	.070	300	N	N	N	10	70	<1.0
FRR021	42 16 27	107 21 15	.05	.70	>20.00	.010	10	N	N	N	N	N	3.0
FRR037	42 16 52	107 17 50	N	.20	>20.00	.007	100	N	N	N	N	N	<1.0
FRR042	42 15 42	107 16 11	N	.30	>20.00	.010	100	N	N	N	N	N	<1.0
FRR051	42 15 28	107 15 32	N	10.00	>20.00	.005	500	N	N	N	N	N	<1.0
FRR054	42 15 12	107 15 58	.10	10.00	20.00	.005	300	N	N	N	<10	N	<1.0
FRR055	42 15 18	107 15 25	<.05	10.00	>20.00	.005	150	N	N	N	N	N	<1.0
FRR057	42 15 21	107 15 10	.10	7.00	10.00	.003	300	N	N	N	70	20	<1.0
FRR064	42 14 45	107 14 27	.05	>10.00	>20.00	.015	200	N	N	N	10	N	<1.0
FRR068	42 14 36	107 13 56	<.05	10.00	20.00	.005	200	N	N	N	N	N	<1.0
FRR076	42 14 5	107 11 48	.20	2.00	>20.00	.070	700	.5	N	N	10	20	<1.0
FRR081	42 14 33	107 12 38	<.05	1.00	>20.00	.005	100	N	N	N	<10	N	<1.0
FRR086	42 14 27	107 11 37	N	.50	>20.00	.007	100	N	N	N	N	N	<1.0
FRR093	42 15 9	107 12 54	.15	.70	>20.00	.010	300	N	N	N	N	N	<1.0
FRR216	42 16 27	107 22 42	<.05	>10.00	20.00	.003	500	N	N	N	N	N	<1.0
FRR224	42 18 13	107 22 49	1.50	>10.00	20.00	.020	1,500	N	N	N	30	<20	2.0
FRR226	42 19 5	107 22 40	N	.50	>20.00	.010	100	N	N	N	N	N	<1.0
FRR227B	42 19 7	107 22 57	N	.70	>20.00	.015	300	N	N	N	N	300	<1.0
FRR001	42 15 9	107 16 53	2.00	<.02	.05	.200	20	N	N	N	30	200	<1.0

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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	Sc-ppm s	Sn-ppm s	Sr-ppm s
FRR069	N	N	N	200	20	N	N	N	7	N	N	N	N	200
FRR126	N	N	N	20	5	N	N	N	5	N	N	N	N	N
FRR227C	N	N	5	<10	N	<20	N	N	10	N	N	N	N	100
FRR023	N	N	5	50	7	20	N	N	7	10	N	7	N	300
FRR008	N	N	N	20	20	70	N	<20	N	N	N	5	N	300
FRR009	N	N	20	30	10	N	15	N	30	10	N	7	N	N
FRR010	N	N	N	15	<5	20	N	N	5	N	N	N	N	100
FRR017	N	N	N	70	20	<20	20	20	15	N	N	7	N	N
FRR018	N	N	N	70	20	N	15	<20	5	N	N	10	N	N
FRR113	N	N	N	20	<5	100	10	20	5	10	N	N	N	100
FRR223	N	N	5	30	7	N	N	<20	<5	10	N	5	N	N
FRR219	N	N	N	10	N	N	N	N	<5	N	N	N	N	300
FRR028	N	N	N	15	10	N	N	N	N	N	N	N	N	N
FRR032	N	N	N	20	N	N	N	N	N	N	N	N	N	N
FRR033	N	N	N	10	N	N	N	N	N	N	N	N	N	N
FRR036	N	N	N	10	10	N	N	N	N	N	N	N	N	N
FRR067	N	N	N	15	N	N	N	N	N	N	N	N	N	N
FRR077	N	N	N	20	<5	N	N	N	N	N	N	N	N	100
FRR080	N	N	N	30	7	N	N	N	N	N	N	N	N	N
FRR092	N	N	N	10	<5	N	N	N	N	N	N	N	N	N
FRR114	N	N	N	15	5	N	N	N	N	N	N	N	N	N
FRR118	N	N	N	15	5	50	N	N	N	N	N	N	N	100
FRR217	N	N	N	15	5	N	N	N	N	N	N	N	N	N
FRR220	N	N	N	10	<5	N	N	N	N	N	N	N	N	N
FRR221	N	N	N	10	5	N	N	N	N	N	N	N	N	N
FRR227A	N	N	N	15	N	N	N	N	N	N	N	N	N	N
FRR003	N	N	N	150	<5	N	N	N	N	N	N	N	N	700
FRR021	N	N	N	N	N	N	N	N	N	N	N	N	N	500
FRR037	N	N	N	N	15	N	N	N	N	N	N	N	N	200
FRR042	N	N	N	<10	N	N	N	N	N	N	N	N	N	200
FRR051	N	N	5	70	5	N	N	N	7	N	N	N	N	N
FRR054	N	N	N	100	20	N	N	N	N	70	N	N	N	N
FRR055	N	N	N	50	<5	N	N	N	N	N	N	N	N	N
FRR057	N	N	N	10	<5	N	N	N	N	N	N	N	N	N
FRR064	N	N	N	200	<5	N	N	N	5	N	N	N	N	N
FRR068	N	N	N	15	N	N	N	N	N	N	N	N	N	N
FRR076	N	N	N	300	15	N	N	N	N	N	N	N	N	700
FRR081	N	N	N	10	N	N	N	N	N	N	N	N	N	200
FRR086	N	N	N	<10	<5	N	N	N	N	N	N	N	N	200
FRR093	N	N	N	15	N	N	N	N	N	N	N	N	N	200
FRR216	N	N	5	<10	7	N	N	N	10	N	N	N	N	N
FRR224	N	N	10	20	5	N	N	N	5	<10	N	N	N	N
FRR226	N	N	N	<10	N	N	N	N	N	N	N	N	N	300
FRR227B	N	N	N	50	N	N	N	N	N	N	N	N	N	500
FRR001	N	N	N	10	15	N	N	N	5	N	N	N	N	N

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa	U-inst	S%	Pb-ppm aa
FRR069	70	N	N	N	50	N	--	--	--	--	--	--	--	.04	8.46
FRR126	<10	N	N	N	20	N	--	--	--	--	--	--	--	.02	5.14
FRR227C	30	N	15	N	70	N	--	--	--	--	--	--	--	<.01	3.04
FRR023	50	N	30	N	100	N	--	--	--	--	--	--	--	<.01	8.31
FRR008	20	N	70	N	1,000	N	--	--	--	--	--	--	--	--	--
FRR009	100	N	50	N	70	N	--	--	--	--	--	--	--	--	--
FRR010	30	N	50	N	100	N	--	--	--	--	--	--	--	--	--
FRR017	150	N	15	N	100	N	--	--	--	--	--	--	--	--	--
FRR018	100	N	10	N	100	N	--	--	--	--	--	--	--	--	--
FRR113	70	N	200	N	50	N	--	--	--	--	--	--	--	--	--
FRR223	20	N	30	N	700	N	--	--	--	--	--	--	--	--	--
FRR219	20	N	15	N	70	N	--	--	--	--	--	--	--	--	--
FRR028	15	N	10	N	500	N	--	--	--	--	--	--	--	--	--
FRR032	<10	N	N	N	700	N	--	--	--	--	--	--	--	--	--
FRR033	<10	N	N	N	50	N	--	--	--	--	--	--	--	--	--
FRR036	<10	N	N	N	70	N	--	--	--	--	--	--	--	--	--
FRR067	<10	N	N	N	100	N	--	--	--	--	--	--	--	--	--
FRR077	15	N	10	N	1,000	N	--	--	--	--	--	--	--	--	--
FRR080	10	N	N	N	150	N	--	--	--	--	--	--	--	--	--
FRR092	10	N	N	N	700	N	--	--	--	--	--	--	--	--	--
FRR114	<10	N	10	N	300	N	--	--	--	--	--	--	--	--	--
FRR118	10	N	30	N	150	N	--	--	--	--	--	--	--	--	--
FRR217	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	--
FRR220	<10	N	N	N	20	N	--	--	--	--	--	--	--	--	--
FRR221	<10	N	N	N	300	N	--	--	--	--	--	--	--	--	--
FRR227A	15	N	10	N	150	N	--	--	--	--	--	--	--	--	--
FRR003	10	N	N	N	70	N	--	--	--	--	--	--	--	--	11.00
FRR021	<10	N	N	N	20	N	--	--	--	--	--	--	--	--	11.80
FRR037	<10	N	N	N	10	N	--	--	--	--	--	--	--	--	11.70
FRR042	<10	N	N	N	10	N	--	--	--	--	--	--	--	--	11.80
FRR051	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	12.30
FRR054	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	12.30
FRR055	<10	N	N	N	10	N	--	--	--	--	--	--	--	--	12.30
FRR057	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	3.95
FRR064	<10	N	N	N	10	N	--	--	--	--	--	--	--	--	12.20
FRR068	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	10.60
FRR076	15	N	N	N	70	N	--	--	--	--	--	--	--	--	11.00
FRR081	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	10.80
FRR086	<10	N	N	N	10	N	--	--	--	--	--	--	--	--	11.60
FRR093	<10	N	N	N	10	N	--	--	--	--	--	--	--	--	11.50
FRR216	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	11.50
FRR224	50	N	10	N	20	N	--	--	--	--	--	--	--	--	11.40
FRR226	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	11.60
FRR227B	10	N	N	N	N	N	--	--	--	--	--	--	--	--	11.40
FRR001	50	N	10	N	1,000	N	--	--	--	--	--	--	.90	--	--

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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
FRR015	42 15 50	107 20 47	.50	.02	<.05	.150	200	N	N	N	50	150	<1.0
FRR016	42 15 48	107 20 44	2.00	.50	.20	.500	150	<.5	N	N	150	200	1.5
FRR022	42 15 20	107 18 34	3.00	1.50	1.50	.500	300	N	N	N	150	150	2.0
FRR024	42 15 20	107 18 34	3.00	1.00	3.00	.500	1,000	N	N	N	150	150	2.0
FRR218	42 16 27	107 22 42	.20	.20	10.00	.070	700	N	N	N	15	2,000	<1.0
FRR005	42 16 17	107 18 18	1.00	10.00	20.00	.020	5,000	N	N	N	20	30	<1.0
FRR006	42 16 21	107 18 32	2.00	7.00	15.00	.100	2,000	<.5	N	N	150	300	2.0
FRR007	42 16 21	107 18 32	.70	>10.00	>20.00	.030	1,000	N	N	N	50	<20	<1.0
FRR011	42 16 31	107 18 38	5.00	1.00	1.50	.500	1,000	N	N	N	50	1,000	3.0
FRR012	42 16 31	107 18 38	.30	.10	.20	.020	50	N	N	N	20	200	3.0
FRR013	42 16 21	107 18 10	7.00	2.00	2.00	1.000	1,500	N	N	N	10	1,500	2.0
FRR041	42 15 47	107 16 39	.15	.50	2.00	.005	150	N	N	N	70	50	<1.0
FRR043	42 15 55	107 16 14	3.00	.50	2.00	.500	300	N	N	N	20	1,000	3.0
FRR044	42 15 56	107 16 13	.05	<.02	<.05	.003	15	N	N	N	N	200	<1.0
FRR045	42 15 56	107 16 13	.20	.10	1.50	.030	150	N	N	N	30	70	5.0
FRR050A	42 15 50	107 15 47	15.00	7.00	2.00	1.000	2,000	N	N	N	10	1,000	1.0
FRR050B	42 15 50	107 15 47	7.00	.70	<.05	.150	300	1.5	300	N	N	700	<1.0
FRR050C	42 15 50	107 15 47	>20.00	1.00	<.05	.050	1,000	10.0	2,000	N	10	70	1.5
FRR050D	42 15 50	107 15 47	10.00	.70	<.05	.030	500	.5	200	N	N	100	1.0
FRR050E	42 15 50	107 15 47	10.00	.70	<.05	.020	500	1.5	3,000	N	N	200	<1.0
FRR058	42 15 34	107 15 11	.70	.30	N	.020	100	N	N	N	<10	50	<1.0
FRR059	42 15 44	107 15 28	.05	.03	N	.002	15	N	N	N	<10	70	<1.0
FRR060	42 15 37	107 14 58	.70	.15	.20	.030	150	N	N	N	<10	2,000	<1.0
FRR061	42 15 29	107 14 34	10.00	5.00	1.50	.700	1,500	N	N	N	10	100	<1.0
FRR063	42 15 8	107 14 17	1.00	.50	1.00	.100	150	N	N	N	<10	100	<1.0
FRR066	42 14 19	107 18 50	2.00	3.00	7.00	.500	1,000	.5	N	N	150	500	3.0
FRR070	42 14 51	107 13 38	7.00	.05	.07	.150	100	N	N	N	50	200	2.0
FRR073A	42 15 3	107 13 34	7.00	.02	.05	.300	50	.5	N	N	10	1,500	1.5
FRR073B	42 15 3	107 13 34	5.00	.50	.10	.200	150	<.5	N	N	30	1,000	1.5
FRR074A	42 15 7	107 13 16	.05	<.02	<.05	.005	N	N	N	N	10	50	1.0
FRR074B	42 15 7	107 13 16	5.00	.70	3.00	.300	1,000	N	N	N	15	200	1.0
FRR075	42 14 49	107 13 27	5.00	.02	.05	.300	200	N	N	N	50	1,000	1.5
FRR083	42 15 9	107 12 54	5.00	1.50	.15	.200	300	N	N	N	10	300	<1.0
FRR084	42 14 43	107 12 16	.30	.15	.10	.030	150	N	N	N	15	200	<1.0
FRR088	42 14 31	107 11 4	2.00	.03	.05	.100	10	<.5	N	N	20	200	<1.0
FRR089	42 14 29	107 11 5	3.00	10.00	>20.00	.020	1,000	N	N	N	10	20	<1.0
FRR090	42 14 19	107 18 50	3.00	3.00	7.00	.300	500	.7	N	N	150	700	3.0
FRR094	42 14 39	107 10 24	.30	.05	.05	.500	300	N	N	N	15	150	<1.0
FRR095	42 14 43	107 10 19	>20.00	.30	2.00	.100	200	2.0	>10,000	N	10	500	1.0
FRR096A	42 14 45	107 10 26	20.00	7.00	7.00	>1.000	3,000	N	<200	N	15	300	<1.0
FRR096B	42 14 45	107 10 26	3.00	1.00	2.00	.200	1,000	N	200	N	30	1,000	3.0
FRR096C	42 14 45	107 10 26	20.00	.10	.20	.020	100	100.0	>10,000	N	10	200	<1.0
FRR096D	42 14 45	107 10 26	5.00	1.00	.70	.500	1,000	5.0	1,500	N	20	5,000	2.0
FRR096E	42 14 45	107 10 26	15.00	7.00	7.00	1.000	3,000	N	N	N	10	300	<1.0
FRR101A	42 14 58	107 11 27	3.00	.70	5.00	.300	500	N	N	N	10	<20	<1.0

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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	Sc-ppm s	Sn-ppm s	Sr-ppm s
FRR015	N	N	N	30	<5	N	N	N	N	10	N	N	N	N
FRR016	N	N	10	70	20	20	N	N	50	N	N	10	N	100
FRR022	N	N	10	70	20	50	N	N	30	N	N	10	N	300
FRR024	N	N	7	50	20	50	N	N	20	N	N	10	N	300
FRR218	N	N	N	10	N	<20	N	N	N	N	N	N	N	500
FRR005	N	N	20	20	15	N	N	N	20	N	N	N	N	N
FRR006	N	N	10	15	15	30	N	N	20	20	N	5	N	100
FRR007	N	N	7	20	7	N	N	N	7	N	N	N	N	100
FRR011	N	N	15	20	10	150	N	N	15	10	N	15	N	200
FRR012	N	N	N	N	10	N	N	N	N	N	N	N	N	N
FRR013	N	N	30	70	50	100	N	N	50	N	N	20	N	200
FRR041	N	N	N	15	5	N	N	N	N	N	N	N	N	N
FRR043	N	N	50	10	30	20	7	<20	5	100	N	7	300	100
FRR044	N	N	N	10	N	N	N	N	N	N	N	N	N	N
FRR045	N	N	N	N	20	N	N	N	N	20	N	N	N	100
FRR050A	N	N	50	70	1,000	30	N	N	50	20	N	70	N	150
FRR050B	N	N	70	10	7,000	N	N	N	5	100	N	N	N	N
FRR050C	20	N	20	10	>20,000	50	N	N	15	200	N	10	N	N
FRR050D	N	N	100	10	5,000	N	N	N	N	30	N	N	N	N
FRR050E	N	N	200	10	20,000	50	15	N	N	70	N	N	N	N
FRR058	N	N	5	15	100	N	N	N	5	N	N	N	N	N
FRR059	N	N	N	10	20	N	N	N	N	N	N	N	N	N
FRR060	N	N	10	<10	30	N	N	N	N	N	N	N	N	N
FRR061	N	N	30	100	20	N	N	N	100	N	N	30	N	200
FRR063	N	N	5	10	10	N	N	N	5	N	N	N	N	N
FRR066	N	N	10	100	20	70	N	N	70	70	N	15	N	300
FRR070	N	N	15	20	10	100	10	N	20	20	N	N	N	200
FRR073A	N	N	5	20	20	50	N	N	5	70	N	10	N	200
FRR073B	N	N	5	50	20	70	N	N	5	20	N	15	N	N
FRR074A	N	N	N	N	<5	N	N	N	N	N	N	N	N	N
FRR074B	N	N	15	70	50	50	N	N	50	N	N	20	N	300
FRR075	N	N	20	50	20	20	N	N	20	10	N	10	N	100
FRR083	N	N	20	70	10	N	15	N	30	N	N	7	N	N
FRR084	N	N	10	10	30	N	N	N	N	N	N	N	N	N
FRR088	N	N	N	15	20	50	N	N	20	10	N	N	N	150
FRR089	N	N	5	15	7	N	N	N	15	10	N	N	N	N
FRR090	N	N	10	100	20	30	N	N	70	70	N	7	N	200
FRR094	N	N	N	70	<5	N	N	N	15	N	N	N	N	N
FRR095	200	N	500	20	20	50	<5	N	100	50	100	<5	N	300
FRR096A	N	N	50	300	500	N	N	N	150	10	N	70	N	200
FRR096B	N	N	10	30	20	20	N	N	20	30	N	10	N	100
FRR096C	700	N	30	15	>20,000	N	20	N	20	500	N	N	50	N
FRR096D	300	N	7	30	10,000	20	N	N	10	300	N	15	20	N
FRR096E	N	N	50	300	1,000	N	5	N	100	70	N	70	N	200
FRR101A	N	N	15	30	300	30	N	<20	30	20	N	15	N	500

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa	U-inst	S%	Ib-ppm aa
FRR015	<10	N	10	N	30	N	--	--	--	--	--	--	.25	--	--
FRR016	100	N	30	N	200	N	--	--	--	--	--	--	1.10	--	--
FRR022	70	N	30	N	200	N	--	--	--	--	--	--	.60	--	--
FRR024	70	N	50	N	200	N	--	--	--	--	--	--	.45	--	--
FRR218	<10	N	10	N	50	N	--	--	--	--	--	--	.10	--	--
FRR005	30	N	20	N	70	N	--	N	N	N	<2	15	--	--	--
FRR006	30	N	50	N	150	N	--	<5	N	N	<2	10	--	--	--
FRR007	30	N	15	N	20	N	--	N	N	N	<2	<5	--	--	--
FRR011	70	N	50	N	200	N	--	N	N	N	<2	50	--	--	--
FRR012	N	N	20	N	70	N	--	N	N	N	<2	N	--	--	--
FRR013	150	N	50	N	200	N	--	N	N	N	<2	65	--	--	--
FRR041	<10	N	N	N	N	N	--	N	N	N	<2	5	--	--	--
FRR043	50	N	70	N	200	N	--	<5	1	N	<2	25	--	--	--
FRR044	N	N	N	N	N	N	--	N	N	N	<2	N	--	--	--
FRR045	<10	N	10	N	30	N	--	N	N	N	<2	20	--	--	--
FRR050A	700	N	50	N	100	N	<.05	5	1	N	<2	65	--	--	--
FRR050B	20	N	15	N	200	N	N	380	1	.2	N	35	--	--	--
FRR050C	100	N	70	N	50	N	N	1,000	19	.3	N	55	--	--	--
FRR050D	30	N	10	N	N	N	N	300	2	.4	N	95	--	--	--
FRR050E	50	N	50	N	10	N	<.05	>2,000	4	.5	<2	80	--	--	--
FRR058	<10	N	N	N	N	N	--	N	N	N	N	5	--	--	--
FRR059	N	N	N	N	N	N	--	N	1	N	N	N	--	--	--
FRR060	10	N	10	N	50	N	--	N	1	N	<2	<5	--	--	--
FRR061	150	N	20	N	70	N	--	N	N	N	<2	35	--	--	--
FRR063	10	N	15	N	70	N	--	N	N	N	N	<5	--	--	--
FRR066	100	N	30	N	200	N	--	5	N	.2	<2	70	--	--	--
FRR070	50	N	50	N	500	N	--	15	1	.3	<2	60	--	--	--
FRR073A	20	N	10	N	100	N	--	60	2	.1	<2	N	--	--	--
FRR073B	50	N	30	N	100	N	--	N	N	N	<2	5	--	--	--
FRR074A	<10	N	N	N	N	N	--	N	<1	N	<2	N	--	--	--
FRR074B	100	N	30	N	100	N	--	N	1	N	<2	20	--	--	--
FRR075	20	N	50	N	>1,000	N	--	10	N	N	<2	30	--	--	--
FRR083	50	N	10	N	70	N	--	N	N	N	<2	15	--	--	--
FRR084	<10	N	N	N	N	N	--	N	N	N	<2	5	--	--	--
FRR088	50	N	20	N	500	N	--	N	N	N	N	10	--	--	--
FRR089	30	N	10	N	<10	N	--	N	N	N	N	5	--	--	--
FRR090	70	N	30	N	200	N	<.05	<5	N	.2	N	70	--	--	--
FRR094	20	N	30	N	1,000	N	--	N	N	N	N	N	--	--	--
FRR095	50	N	20	N	70	N	.05	>2,000	340	.2	30	10	--	--	--
FRR096A	500	N	30	N	70	N	N	200	N	N	N	85	--	--	--
FRR096B	50	N	30	N	70	N	N	180	N	N	N	45	--	--	--
FRR096C	150	N	10	700	N	N	.05	>2,000	570	8.0	4	300	--	--	--
FRR096D	100	N	20	300	150	N	<.05	1,000	400	.8	<2	450	--	--	--
FRR096E	300	N	20	<200	50	N	N	50	6	.1	N	55	--	--	--
FRR101A	100	N	30	N	100	N	N	30	1	N	N	5	--	--	--

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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
FRR101B	42 14 58	107 11 27	5.00	1.00	3.00	.300	1,000	N	N	N	15	100	1.5
FRR103A	42 14 46	107 11 16	1.50	.70	2.00	.050	300	.5	N	N	10	100	1.0
FRR103B	42 14 46	107 11 16	5.00	1.00	.70	.500	1,000	N	N	N	10	1,500	3.0
FRR103C	42 14 46	107 11 16	10.00	10.00	7.00	.700	2,000	N	N	N	10	700	2.0
FRR105A	42 14 42	107 11 32	.50	.05	.05	.007	150	N	N	N	<10	50	<1.0
FRR105B	42 14 42	107 11 32	5.00	.15	.05	.030	200	2.0	1,500	N	10	200	<1.0
FRR105C	42 14 42	107 11 32	15.00	5.00	5.00	.700	2,000	N	N	N	<10	500	1.5
FRR105D	42 14 42	107 11 32	3.00	.70	1.00	.200	500	N	N	N	15	300	2.0
FRR106A	42 14 42	107 11 32	3.00	1.00	1.00	.300	700	N	N	N	30	200	2.0
FRR106B	42 14 42	107 11 32	20.00	1.50	.05	.500	2,000	N	3,000	N	10	70	<1.0
FRR106C	42 14 42	107 11 32	20.00	3.00	7.00	1.000	3,000	N	N	N	10	150	1.5
FRR106D	42 14 42	107 11 32	10.00	N	<.05	.015	N	3.0	>10,000	N	N	20	<1.0
FRR107	42 14 41	107 11 33	20.00	2.00	.30	1.000	1,000	7.0	3,000	N	<10	200	1.0
FRR109A	42 17 53	107 18 4	3.00	.50	.50	.500	200	N	N	N	20	500	5.0
FRR109B	42 17 53	107 18 4	.70	.10	.20	.050	500	N	N	N	15	700	7.0
FRR109C	42 17 53	107 18 4	10.00	5.00	5.00	>1.000	2,000	<.5	N	N	10	200	2.0
FRR110	42 17 49	107 18 5	10.00	1.00	<.05	.300	300	N	N	N	10	500	1.0
FRR112A	42 17 34	107 18 22	1.00	.70	.07	.150	100	N	N	N	70	300	5.0
FRR112B	42 17 34	107 18 22	.50	.07	<.05	<.002	300	N	N	N	10	30	<1.0
FRR117	42 14 19	107 18 50	2.00	2.00	7.00	.500	500	<.5	N	N	150	300	2.0
FRR128	42 17 2	107 19 8	.15	<.02	<.05	.002	10	N	N	N	10	30	1.0
FRR130A	42 16 44	107 18 42	7.00	1.00	2.00	1.000	1,000	N	N	N	50	1,000	3.0
FRR130B	42 16 44	107 18 42	.50	.10	.20	.030	100	N	N	N	15	300	2.0
FRR130C	42 16 44	107 18 42	10.00	7.00	7.00	.700	2,000	N	N	N	10	100	1.5
FRR130D	42 16 44	107 18 42	.70	.30	.20	.020	150	N	N	N	<10	30	<1.0
FRR130E	42 16 44	107 18 42	20.00	.50	.70	.070	200	70.0	<200	N	10	300	2.0
FRR130F	42 16 44	107 18 42	10.00	2.00	2.00	.300	1,500	.5	N	N	15	200	3.0
FRR131	42 16 42	107 18 41	10.00	.10	<.05	.030	100	100.0	500	N	N	70	2.0
FRR132A	42 16 40	107 18 53	5.00	1.00	1.50	.700	1,000	N	N	N	30	1,000	2.0
FRR132B	42 16 40	107 18 53	>20.00	.15	.05	.050	150	7.0	N	N	15	70	1.5
FRR132C	42 16 40	107 18 53	10.00	1.50	.20	1.000	1,000	.5	N	N	20	70	1.5
FRR132D	42 16 40	107 18 53	15.00	2.00	7.00	1.000	1,000	3.0	N	N	50	500	2.0
FRR133	42 16 47	107 19 16	7.00	1.00	5.00	.700	1,500	.5	N	N	30	1,500	2.0
FRR134A	42 16 56	107 19 34	1.00	.30	<.05	.050	150	<.5	N	N	<10	200	N
FRR134B	42 16 56	107 19 34	2.00	.70	1.00	.300	300	N	N	N	30	700	3.0
FRR135A	42 17 3	107 19 28	>20.00	7.00	.70	1.000	2,000	N	N	N	10	N	<1.0
FRR135B	42 17 3	107 19 28	5.00	.50	.05	.100	200	15.0	N	N	20	100	1.0
FRR138	42 16 53	107 17 25	.70	.10	<.05	.050	50	N	N	N	<10	1,000	<1.0
FRR139	42 16 57	107 17 8	2.00	.70	.30	.100	200	N	N	N	20	70	<1.0
FRR140	42 17 11	107 17 19	3.00	1.50	.10	.100	300	N	N	N	20	50	2.0
FRR142	42 17 37	107 17 47	20.00	7.00	5.00	>1.000	2,000	N	N	N	30	200	1.5
FRR143	42 17 41	107 17 47	.20	.05	<.05	.010	150	N	N	N	N	70	<1.0
FRR156	42 18 6	107 16 1	1.00	.03	10.00	.100	150	N	N	N	N	70	5.0
FRR165	42 16 45	107 16 5	1.00	.70	<.05	<.002	200	N	N	N	10	20	N
FRR175	42 16 7	107 14 25	3.00	1.00	.05	.100	500	N	N	N	10	N	<1.0

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FRRIS MOUNTAINS, WYOMING--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	Sc-ppm s	Sn-ppm s	Sr-ppm s
FRR101B	N	N	20	20	30	20	<5	N	30	20	N	15	N	200
FRR103A	N	N	5	70	5,000	N	N	N	30	20	N	N	N	N
FRR103B	N	N	10	50	5,000	20	N	N	30	20	N	10	N	100
FRR103C	N	N	30	1,500	50	150	N	N	500	15	N	20	N	200
FRR105A	<10	N	7	10	5,000	N	N	N	5	N	N	N	N	N
FRR105B	10	N	7	15	20,000	20	N	N	20	20	N	N	N	N
FRR105C	N	N	30	200	1,000	50	N	N	100	10	N	30	N	200
FRR105D	N	N	15	20	100	100	N	N	30	10	N	7	N	150
FRR106A	N	N	10	20	30	50	N	N	50	10	N	10	N	150
FRR106B	N	N	30	150	2,000	N	N	N	70	N	N	30	N	N
FRR106C	N	N	30	20	100	30	5	N	30	10	N	50	N	100
FRR106D	700	N	300	N	1,000	N	N	N	70	50	150	N	N	N
FRR107	500	N	30	20	3,000	N	N	N	70	70	N	30	30	100
FRR109A	N	N	5	10	30	100	N	N	20	20	N	5	N	200
FRR109B	N	N	N	N	15	30	N	N	10	10	N	N	N	100
FRR109C	N	N	50	150	50	50	N	N	50	10	N	50	N	300
FRR110	N	N	N	15	10	N	N	<20	10	10	N	10	30	N
FRR112A	N	N	5	10	15	N	N	N	10	N	N	<5	N	N
FRR112B	N	N	5	150	10	N	N	N	7	N	N	N	N	N
FRR117	N	N	10	70	20	30	N	N	30	50	N	10	N	300
FRR128	N	N	N	N	5	N	N	N	N	N	N	N	N	N
FRR130A	N	N	20	30	20	100	N	<20	20	20	N	20	N	300
FRR130B	N	N	N	N	10	N	N	N	10	30	N	N	N	100
FRR130C	N	N	50	700	50	N	N	N	200	20	N	30	20	200
FRR130D	N	N	N	10	700	N	N	N	5	N	N	N	N	N
FRR130E	150	N	50	50	>20,000	50	50	N	100	150	N	15	70	100
FRR130F	N	N	20	200	10,000	20	N	N	100	50	N	20	15	200
FRR131	200	N	50	15	>20,000	50	50	N	100	1,000	N	N	200	N
FRR132A	N	N	15	15	1,000	200	N	N	10	N	N	15	10	200
FRR132B	200	N	100	10	5,000	100	20	N	50	70	N	<5	20	N
FRR132C	N	N	50	10	10,000	50	N	N	20	N	N	20	N	N
FRR132D	<10	N	20	50	10,000	100	N	N	50	10	N	20	100	500
FRR133	N	N	20	30	700	30	N	N	30	30	N	15	N	200
FRR134A	N	N	5	N	200	N	N	N	30	N	N	N	N	N
FRR134B	N	N	10	15	20	100	N	N	10	30	N	5	N	200
FRR135A	N	N	70	500	150	20	N	N	150	10	N	50	10	N
FRR135B	N	N	10	30	30	150	N	N	30	N	N	N	N	300
FRR138	N	N	N	<10	20	N	N	N	N	N	N	N	N	N
FRR139	N	N	15	30	70	N	N	N	50	N	N	15	N	N
FRR140	N	N	15	<10	20	N	5	N	10	N	N	<5	N	N
FRR142	N	N	50	300	200	N	N	N	100	15	N	50	N	100
FRR143	N	N	N	20	1,000	N	N	N	N	N	N	N	N	N
FRR156	N	N	N	<10	20	N	N	N	N	10	N	N	N	2,000
FRR165	<10	N	N	N	10	N	N	N	N	10	N	N	N	N
FRR175	N	N	30	50	20	N	N	N	50	N	N	7	N	N

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa	U-inst	S%	Th-ppm aa
FRR101B	100	N	30	N	150	N	N	15	N	N	N	10	--	--	--
FRR103A	20	N	N	N	20	N	N	15	N	N	N	15	--	--	--
FRR103B	70	N	30	N	70	N	N	5	N	.1	<2	60	--	--	--
FRR103C	100	N	30	N	100	N	N	10	N	N	<2	35	--	--	--
FRR105A	10	N	10	N	N	N	N	110	13	N	<2	<5	--	--	--
FRR105B	50	N	15	N	N	N	<.05	1,800	13	.2	2	20	--	--	--
FRR105C	200	N	30	N	100	N	N	35	N	.1	<2	50	--	--	--
FRR105D	70	N	20	N	100	N	N	5	N	N	<2	20	--	--	--
FRR106A	50	N	20	N	100	N	N	25	N	N	N	20	--	--	--
FRR106B	150	N	30	N	50	N	<.05	>2,000	15	N	6	65	--	--	--
FRR106C	200	N	30	N	150	N	N	4	N	N	N	40	--	--	--
FRR106D	N	500	N	N	N	N	.10	>2,000	>1,000	.1	70	N	--	--	--
FRR107	300	N	50	N	70	N	.05	>2,000	630	.2	4	50	--	--	--
FRR109A	70	N	20	N	100	N	--	20	1	N	<2	10	--	--	--
FRR109B	10	N	10	N	10	N	--	30	N	N	<2	N	--	--	--
FRR109C	500	N	30	N	70	N	--	10	N	N	<2	30	--	--	--
FRR110	70	N	10	N	500	N	--	5	N	N	<2	60	--	--	--
FRR112A	20	N	15	N	100	N	--	5	N	N	<2	N	--	--	--
FRR112B	N	N	10	N	N	N	--	10	N	N	<2	N	--	--	--
FRR117	50	N	20	N	200	N	--	<4	N	.1	<2	75	--	--	--
FRR128	N	N	N	N	N	N	--	10	N	N	N	N	--	--	--
FRR130A	100	N	50	N	500	N	N	<5	N	N	<2	40	--	--	--
FRR130B	N	N	N	N	N	N	N	<5	N	N	<2	<5	--	--	--
FRR130C	200	N	30	N	50	N	N	N	1	N	<2	30	--	--	--
FRR130D	10	N	N	N	N	N	N	<5	1	N	<2	20	--	--	--
FRR130E	150	<50	100	N	10	N	.05	85	110	1.3	<2	45	--	--	--
FRR130F	150	N	30	N	50	N	N	<5	15	N	<2	55	--	--	--
FRR131	70	N	50	N	N	N	.25	230	550	2.4	2	95	--	--	--
FRR132A	100	N	50	N	150	N	N	N	1	N	<2	70	--	--	--
FRR132B	70	70	50	N	30	N	2.50	200	470	.1	2	15	--	--	--
FRR132C	100	N	30	N	700	N	<.05	N	8	.1	N	35	--	--	--
FRR132D	100	N	70	N	300	N	.05	N	12	N	N	35	--	--	--
FRR133	100	N	30	N	150	N	--	N	N	N	<2	40	--	--	--
FRR134A	<10	N	N	N	70	N	--	N	2	N	N	5	--	--	--
FRR134B	50	N	30	N	150	N	--	N	N	N	N	30	--	--	--
FRR135A	200	N	20	N	30	N	--	N	N	N	<2	85	--	--	--
FRR135B	30	N	70	N	200	N	--	10	N	N	N	10	--	--	--
FRR138	<10	N	N	N	<10	N	--	<5	N	N	N	<5	--	--	--
FRR139	70	N	10	N	10	N	--	N	N	N	N	15	--	--	--
FRR140	30	N	10	N	50	N	--	5	N	N	N	40	--	--	--
FRR142	300	N	30	N	50	N	--	N	1	N	<2	60	--	--	--
FRR143	N	N	N	N	N	N	--	N	N	N	<2	N	--	--	--
FRR156	20	N	N	N	70	N	--	N	N	N	<2	N	--	--	--
FRR165	<10	N	N	N	N	N	--	N	16	N	<2	10	--	--	--
FRR175	50	N	10	N	10	N	--	N	1	N	<2	35	--	--	--

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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
FRR176A	42 15 54	107 14 30	7.00	7.00	.50	.500	1,500	N	N	N	15	50	1.5
FRR176B	42 15 54	107 14 30	5.00	3.00	.05	.100	700	N	N	N	10	20	1.5
FRR179	42 16 2	107 13 14	.30	.05	1.50	.070	50	N	N	N	N	5,000	<1.0
FRR180A	42 16 3	107 13 40	10.00	5.00	.15	.300	1,000	N	N	N	10	100	1.0
FRR180B	42 16 3	107 13 40	.50	.50	.05	.050	100	N	N	N	10	100	1.5
FRR181	42 15 39	107 13 54	5.00	1.00	5.00	.700	1,000	N	N	N	15	100	3.0
FRR182	42 15 56	107 14 8	3.00	1.00	.10	.050	700	N	N	N	20	700	<1.0
FRR193A	42 15 58	107 11 37	1.00	.20	.50	.070	200	N	N	N	15	1,000	1.5
FRR193B	42 15 58	107 11 37	10.00	1.00	3.00	1.000	1,500	N	N	N	15	1,000	3.0
FRR198A	42 15 2	107 10 22	.70	.10	.50	.070	150	N	N	N	10	1,500	1.5
FRR198B	42 15 2	107 10 22	5.00	.50	.50	.300	500	7.0	>10,000	N	20	1,000	1.5
FRR198C	42 15 2	107 10 22	7.00	.15	.05	.100	150	70.0	1,500	20	20	1,000	1.0
FRR199A	42 15 5	107 10 22	5.00	.70	1.50	.300	500	2.0	<200	N	15	1,000	2.0
FRR199B	42 15 5	107 10 22	7.00	.30	1.00	.200	300	15.0	700	N	10	300	2.0
FRR200	42 15 24	107 10 32	1.00	.10	2.00	.100	100	N	N	N	N	30	<1.0
FRR201	42 15 39	107 10 37	5.00	1.00	5.00	.700	1,500	N	N	N	10	300	20.0
FRR202	42 15 56	107 11 6	2.00	.30	.50	.200	500	N	N	N	10	1,000	2.0
FRR203	42 15 34	107 11 34	N	<.02	<.05	<.002	50	N	N	N	<10	20	<1.0
FRR204A	42 15 18	107 11 12	20.00	7.00	3.00	1.000	1,000	N	N	N	15	500	<1.0
FRR204B	42 15 18	107 11 12	5.00	1.00	3.00	.200	200	N	N	N	20	300	<1.0
FRR206A	42 15 45	107 10 28	1.50	.30	1.50	.100	200	N	N	N	10	700	2.0
FRR206B	42 15 45	107 10 28	3.00	.10	<.05	.020	30	N	N	N	10	N	1.0
FRR207	42 15 53	107 10 34	1.00	.05	.10	.020	20	N	N	N	10	300	1.0
FRR210A	42 15 16	107 12 0	5.00	1.00	3.00	.700	700	N	N	N	15	700	3.0
FRR210B	42 15 16	107 12 0	3.00	.70	2.00	.500	700	N	N	N	10	1,500	2.0
FRR211	42 15 47	107 12 35	.50	.10	5.00	.200	100	N	N	N	10	70	3.0
FRR212	42 16 58	107 14 27	2.00	.50	1.00	.300	500	N	N	N	15	700	3.0
FRR213	42 16 7	107 15 18	.20	.20	.10	.300	100	N	N	N	10	50	<1.0
FRR214	42 17 39	107 20 49	.20	.02	<.05	.150	200	N	N	N	20	100	3.0
FRR228	42 19 33	107 23 31	.50	.05	.07	.050	100	N	N	N	15	150	2.0
FRS001	42 15 8	107 9 20	10.00	2.00	2.00	>1.000	1,000	<.5	N	N	100	500	1.5
FRS002	42 15 8	107 9 20	10.00	2.00	5.00	1.000	2,000	N	N	N	10	200	1.0
FRS003	42 15 13	107 9 16	7.00	1.50	1.50	.200	1,500	N	N	N	100	1,000	1.5
FRS004	42 15 13	107 9 16	10.00	2.00	2.00	1.000	1,000	.5	N	N	15	700	1.0
FRD008	42 17 49	107 18 5	3.00	.10	<.05	.150	30	N	N	N	10	200	1.0
FRD017	42 17 42	107 17 49	>20.00	<.02	N	.020	50	2.0	N	N	<10	<20	1.0
FRD018	42 17 42	107 17 49	15.00	5.00	5.00	1.000	2,000	N	N	N	<10	300	5.0
FRD019	42 17 42	107 17 49	20.00	5.00	5.00	1.000	2,000	N	N	N	15	70	<1.0
FRD022	42 16 47	107 15 22	2.00	1.00	5.00	.500	300	N	N	N	N	<20	<1.0
FRD023	42 16 47	107 15 22	1.00	.03	.10	.010	20	1.5	N	N	<10	20	<1.0
FRD024	42 17 37	107 17 24	3.00	.50	.07	.300	300	N	N	N	10	1,000	3.0
FRR050F	42 15 50	107 15 47	1.00	.30	<.05	.050	150	N	N	N	<10	70	<1.0
FRR002	42 15 13	107 16 30	.10	.20	>20.00	.030	300	N	N	N	N	50	N
FRR026	42 15 47	107 18 43	.30	.50	10.00	.030	150	N	N	N	100	100	<1.0
FRR029	42 15 53	107 18 54	<.05	7.00	10.00	.005	200	N	N	N	N	N	1.0

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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	Sc-ppm s	Sn-ppm s	Sr-ppm s
FRR176A	N	N	20	500	15	20	N	N	100	N	N	30	N	N
FRR176B	N	N	30	100	10	N	N	N	50	N	N	15	N	N
FRR179	N	N	N	<10	5	N	N	N	N	N	N	N	N	100
FRR180A	N	N	50	70	10	N	N	N	70	N	N	20	N	N
FRR180B	N	N	N	10	5	N	N	N	N	N	N	N	N	N
FRR181	N	N	20	10	50	N	N	N	5	20	N	15	N	300
FRR182	N	N	20	15	7	N	N	N	20	N	N	N	N	N
FRR193A	N	N	5	<10	50	50	N	N	N	150	N	N	N	100
FRR193B	N	N	20	30	50	200	N	<20	20	20	N	20	N	150
FRR198A	N	N	5	<10	200	N	N	N	N	50	N	N	N	150
FRR198B	10	N	20	30	2,000	30	N	N	7	10	N	10	10	100
FRR198C	30	N	30	10	20,000	20	N	N	30	10	N	N	30	N
FRR199A	N	N	15	20	2,000	70	N	N	15	30	N	10	N	200
FRR199B	100	N	10	15	2,000	30	N	N	10	30	N	5	N	100
FRR200	N	N	5	15	50	N	N	N	N	N	N	N	N	200
FRR201	N	N	20	70	30	200	N	<20	30	100	N	15	100	300
FRR202	N	N	10	10	20	70	N	N	10	70	N	N	N	100
FRR203	N	N	N	10	15	N	N	N	N	N	N	N	N	N
FRR204A	N	N	50	300	15	N	N	N	100	N	N	50	N	200
FRR204B	N	N	20	20	20	70	N	N	20	N	N	7	N	300
FRR206A	N	N	N	<10	30	N	N	N	15	N	N	N	N	500
FRR206B	N	N	N	<10	10	N	N	N	7	N	N	N	N	N
FRR207	N	N	N	<10	7	N	N	N	N	N	N	N	N	100
FRR210A	N	N	20	50	10	100	N	<20	20	30	N	15	N	300
FRR210B	N	N	15	20	20	100	N	N	20	70	N	10	N	200
FRR211	N	N	N	10	<5	70	N	N	N	10	N	N	N	500
FRR212	N	N	10	20	10	100	N	N	20	50	N	10	N	100
FRR213	N	N	N	N	<5	N	N	N	N	N	N	N	N	N
FRR214	N	N	N	30	7	N	N	N	N	N	N	N	N	N
FRR228	N	N	N	N	N	20	N	N	N	70	N	N	N	N
FRS001	N	N	30	200	50	30	N	N	100	20	N	50	N	300
FRS002	N	N	30	150	50	N	N	N	100	20	N	30	N	300
FRS003	N	N	30	150	50	30	N	N	100	10	N	15	N	200
FRS004	N	N	20	300	70	30	N	N	50	70	N	20	N	300
FRD008	N	N	N	10	<5	N	N	N	N	10	N	N	N	N
FRD017	70	N	500	30	5,000	N	150	N	2,000	100	N	N	N	N
FRD018	N	N	50	300	70	N	N	N	100	N	N	30	N	100
FRD019	N	N	50	300	200	N	N	N	150	N	N	50	N	100
FRD022	N	N	5	20	<5	50	N	N	20	10	N	7	N	700
FRD023	N	N	7	10	150	N	N	N	10	30	N	N	N	N
FRD024	N	N	30	10	5	N	N	N	15	50	N	N	N	N
FRR050F	N	N	50	<10	50	N	N	N	N	10	N	N	N	N
FRR002	N	N	N	70	5	N	N	N	N	N	N	N	N	700
FRR026	N	N	N	50	10	N	N	N	5	N	N	N	N	150
FRR029	N	N	N	15	N	N	N	N	N	N	N	N	N	N

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa	U-inst	F%	Pt-ppm aa
FRR176A	150	N	30	N	70	N	--	N	N	N	<2	95	--	--	--
FRR176B	70	N	15	N	20	N	--	5	1	N	<2	50	--	--	--
FRR179	<10	N	N	N	20	N	--	N	N	N	<2	N	--	--	--
FRR180A	100	N	20	N	70	N	--	N	N	N	<2	65	--	--	--
FRR180B	<10	N	10	N	N	N	--	N	N	N	<2	<5	--	--	--
FRR181	200	N	50	N	150	N	--	N	N	N	<2	30	--	--	--
FRR182	70	N	N	N	100	N	--	N	N	N	<2	35	--	--	--
FRR193A	<10	N	10	N	100	N	--	N	N	.1	<2	170	--	--	--
FRR193B	150	N	50	N	500	N	--	5	N	.1	<2	90	--	--	--
FRR198A	10	N	10	N	100	N	N	55	1	N	<2	35	--	--	--
FRR198B	70	N	30	N	70	N	.10	>2,000	9	.3	2	60	--	--	--
FRR198C	20	N	15	N	70	N	.15	1,900	31	.7	<2	190	--	--	--
FRR199A	70	N	20	N	200	N	N	320	N	.2	<2	60	--	--	--
FRR199B	50	N	20	N	200	N	1.35	720	90	.2	<2	75	--	--	--
FRR200	30	N	15	N	100	N	--	<5	N	N	2	N	--	--	--
FRR201	70	N	70	<200	100	N	--	<5	N	.1	<2	150	--	--	--
FRR202	30	N	20	N	100	N	--	N	N	N	<2	15	--	--	--
FRR203	N	N	N	N	N	N	--	N	N	N	<2	N	--	--	--
FRR204A	200	N	30	N	50	N	--	N	N	N	<2	30	--	--	--
FRR204B	70	N	20	N	100	N	--	N	N	N	N	5	--	--	--
FRR206A	10	N	15	N	50	N	--	N	N	N	N	10	--	--	--
FRR206B	<10	N	N	N	20	N	--	20	N	N	<2	5	--	--	--
FRR207	N	N	N	N	10	N	--	15	1	N	<2	N	--	--	--
FRR210A	100	N	70	N	200	N	--	N	N	N	<2	35	--	--	--
FRR210B	100	N	50	N	150	N	--	N	N	N	<2	160	--	--	--
FRR211	20	N	20	N	150	N	--	N	1	N	<2	N	--	--	--
FRR212	50	N	50	N	150	N	--	N	1	N	<2	50	--	--	--
FRR213	<10	N	N	N	20	N	--	N	1	N	<2	N	--	--	--
FRR214	10	N	15	N	200	N	--	N	1	N	<2	N	--	--	--
FRR228	20	N	30	N	50	N	--	N	1	N	<2	5	--	--	--
FRS001	300	N	30	N	150	N	--	40	1	.1	4	170	--	--	--
FRS002	200	N	30	N	100	N	--	40	N	.2	2	60	--	--	--
FRS003	70	N	15	300	70	N	<.05	30	N	.2	4	440	--	--	--
FRS004	150	N	15	<200	100	N	<.05	10	1	.3	2	170	--	--	--
FRD008	<10	N	N	N	50	N	--	N	1	N	<2	10	--	--	--
FRD017	100	N	N	N	N	N	<.05	100	130	.1	<2	<5	--	--	--
FRD018	200	N	20	<200	50	N	--	N	N	N	<2	85	--	--	--
FRD019	300	N	30	N	50	N	--	N	N	N	<2	25	--	--	--
FRD022	50	N	20	N	100	N	<.05	N	N	N	<2	10	--	--	--
FRD023	10	N	N	N	<10	N	N	25	N	N	<2	N	--	--	--
FRD024	30	N	20	N	150	N	--	N	N	N	<2	35	--	--	--
FRR050F	<10	N	N	N	30	N	--	30	N	N	<2	30	--	--	--
FRR002	10	N	N	N	30	N	--	--	--	--	--	--	--	--	--
FRR026	10	N	10	N	20	N	--	--	--	--	--	--	--	--	--
FRR029	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	--

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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
FRR035	42 16 30	107 17 50	.50	>10.00	10.00	.030	200	N	N	N	30	<20	<1.0
FRR046	42 15 58	107 16 13	20.00	5.00	5.00	>1.000	2,000	N	N	N	10	70	<1.0
FRR047	42 14 19	107 18 50	2.00	2.00	7.00	.500	500	1.0	N	N	200	700	2.0
FRR048	42 16 23	107 16 34	10.00	5.00	5.00	>1.000	2,000	N	N	N	50	200	<1.0
FRR049	42 15 58	107 16 0	7.00	.05	.50	.005	50	N	N	N	20	70	<1.0
FRR056	42 15 15	107 15 9	.30	.10	10.00	.100	300	N	N	N	30	<20	<1.0
FRR062	42 15 26	107 14 25	10.00	5.00	5.00	1.000	2,000	N	N	N	20	200	<1.0
FRR071	42 14 55	107 13 36	20.00	5.00	7.00	>1.000	3,000	N	N	N	20	100	<1.0
FRR072	42 15 11	107 13 55	15.00	5.00	5.00	>1.000	2,000	N	N	N	30	200	<1.0
FRR082	42 14 50	107 12 31	3.00	.70	1.50	.500	1,000	<.5	N	N	30	1,500	3.0
FRR097	42 14 54	107 10 48	15.00	5.00	7.00	>1.000	3,000	N	N	N	20	300	<1.0
FRR098	42 14 41	107 10 56	10.00	7.00	2.00	1.000	3,000	<.5	N	N	10	500	1.0
FRR099	42 14 45	107 11 44	10.00	5.00	2.00	1.000	2,000	<.5	N	N	10	200	1.5
FRR100	42 15 9	107 12 6	5.00	1.00	1.50	.700	1,000	N	N	N	10	100	3.0
FRR102	42 14 50	107 11 24	20.00	7.00	5.00	>1.000	2,000	N	N	N	20	700	1.5
FRR104	42 14 43	107 11 31	.50	.70	>20.00	.020	>5,000	N	N	N	N	N	<1.0
FRR111	42 17 40	107 18 18	.50	<.02	.20	.100	500	N	N	N	70	300	1.0
FRR119	42 18 14	107 20 4	<.05	.50	>20.00	.010	150	N	N	N	N	N	<1.0
FRR120	42 18 13	107 20 20	.15	>10.00	>20.00	.007	200	N	N	N	N	N	<1.0
FRR129	42 16 51	107 18 38	15.00	5.00	5.00	1.000	2,000	N	N	N	15	200	1.5
FRR137	42 17 9	107 19 39	10.00	7.00	5.00	.700	2,000	<.5	N	N	20	500	2.0
FRR141	42 17 33	107 17 47	5.00	1.00	.30	1.000	300	N	N	N	<10	2,000	<1.0
FRR145	42 19 2	107 19 23	1.50	1.00	20.00	.150	500	N	N	N	30	300	2.0
FRR149	42 18 44	107 19 30	.70	1.00	>20.00	.070	100	N	N	N	10	200	1.0
FRR151	42 17 48	107 17 21	3.00	.70	.15	.200	500	N	N	N	10	200	1.5
FRR152	42 17 23	107 17 25	.10	.02	.50	.005	500	N	N	N	15	150	50.0
FRR153	42 17 53	107 16 42	5.00	1.00	2.00	.700	700	N	N	N	10	700	5.0
FRR154	42 17 47	107 16 42	2.00	.20	1.00	.100	200	N	N	N	30	1,000	2.0
FRR162	42 17 3	107 16 36	3.00	.30	1.00	.200	500	N	N	N	30	1,000	2.0
FRR164A	42 16 48	107 16 5	15.00	5.00	5.00	1.000	3,000	N	N	N	20	150	<1.0
FRR164B	42 16 48	107 16 5	10.00	7.00	5.00	1.000	2,000	N	N	N	50	500	3.0
FRR166	42 16 24	107 16 24	1.00	.07	.10	.300	2,000	N	N	N	15	1,500	<1.0
FRR167	42 17 24	107 15 19	20.00	7.00	7.00	>1.000	300	20.0	N	N	10	500	<1.0
FRR172	42 16 32	107 14 4	3.00	.70	1.00	.300	700	N	N	N	<10	1,500	3.0
FRR173	42 16 15	107 14 0	2.00	.10	3.00	.030	200	N	N	N	10	50	2.0
FRR174	42 16 10	107 14 22	2.00	.20	1.00	.150	500	N	N	N	50	700	2.0
FRR178	42 16 14	107 13 36	3.00	<.02	7.00	.200	200	N	N	N	<10	70	1.0
FRR183	42 15 56	107 14 5	7.00	5.00	5.00	.500	2,000	N	N	N	10	70	<1.0
FRR209	42 15 38	107 12 9	5.00	.70	2.00	.500	700	N	N	N	10	70	2.0
FRR215	42 17 11	107 22 33	N	.20	>20.00	.015	100	N	N	N	N	N	<1.0
FRR222	42 18 32	107 22 35	1.00	.50	5.00	.500	1,000	N	N	N	100	300	1.0
FRR225	42 18 20	107 22 52	1.00	.50	>20.00	.100	1,500	N	N	N	15	50	<1.0
FRD001	42 16 6	107 14 41	2.00	.50	1.00	.300	700	N	N	N	15	1,000	3.0
FRD002	42 16 6	107 14 41	1.50	.30	1.50	.100	300	N	N	N	10	200	3.0
FRD003	42 15 58	107 14 28	3.00	1.50	1.00	.500	500	N	N	N	30	300	1.5

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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	Sc-ppm s	Sn-ppm s	Sr-ppm s
FRR035	N	N	N	100	20	N	N	N	20	N	N	N	N	N
FRR046	N	N	50	150	200	N	<5	N	50	10	N	50	N	100
FRR047	N	N	10	70	20	70	N	N	20	70	N	10	20	300
FRR048	N	N	30	100	50	30	N	N	50	N	N	50	N	200
FRR049	N	N	200	10	200	N	N	N	70	N	N	N	N	N
FRR056	N	N	N	15	5	N	N	N	N	N	N	N	N	N
FRR062	N	N	30	300	200	N	<5	N	100	N	N	30	N	200
FRR071	N	N	50	200	300	N	5	N	70	15	N	50	N	300
FRR072	N	N	30	300	100	N	N	N	100	30	N	30	N	150
FRR082	N	N	10	20	15	70	N	<20	10	50	N	10	N	200
FRR097	N	N	50	70	500	20	N	<20	70	10	N	30	N	300
FRR098	N	N	30	100	700	N	N	N	30	20	N	30	N	150
FRR099	N	N	30	200	500	N	N	N	100	70	N	30	N	100
FRR100	N	N	15	50	15	100	N	<20	20	10	N	15	N	300
FRR102	N	N	50	100	70	50	N	<20	100	10	N	50	N	500
FRR104	N	N	N	<10	7	N	N	N	N	N	N	N	N	N
FRR111	N	N	7	15	5	N	N	N	5	N	N	N	N	N
FRR119	N	N	N	10	N	N	N	N	N	N	N	N	N	200
FRR120	N	N	N	20	<5	N	N	N	7	N	N	N	N	N
FRR129	N	N	50	150	200	30	N	N	100	15	N	50	N	700
FRR137	N	N	50	1,500	200	50	N	N	200	20	N	70	N	500
FRR141	N	N	30	70	<5	N	N	<20	15	10	N	10	N	N
FRR145	N	N	15	50	30	20	N	N	20	30	N	7	N	200
FRR149	N	N	N	20	10	N	N	N	5	N	N	N	N	300
FRR151	N	N	N	15	500	20	N	N	N	30	N	7	N	N
FRR152	N	N	N	10	10	N	N	<20	N	50	N	N	N	N
FRR153	N	N	30	30	N	100	N	<20	15	20	N	30	N	300
FRR154	N	N	N	<10	N	70	N	N	N	70	N	5	N	100
FRR162	N	N	5	10	N	50	N	N	N	70	N	10	N	100
FRR164A	N	N	50	150	300	30	<5	N	70	N	N	100	N	300
FRR164B	N	N	50	200	100	150	N	N	100	70	N	70	N	500
FRR166	N	N	30	10	20	N	N	N	5	10	N	N	N	N
FRR167	N	N	50	100	500	20	N	N	100	N	N	100	N	1,000
FRR172	N	N	15	15	10	100	N	N	5	70	N	N	N	150
FRR173	N	N	N	<10	<5	N	N	N	N	10	N	N	N	700
FRR174	N	N	N	30	N	50	N	N	N	50	N	N	N	100
FRR178	N	N	N	15	N	100	N	N	N	50	N	<5	N	1,000
FRR183	N	N	50	300	200	N	N	N	100	10	N	50	N	200
FRR209	N	N	15	15	5	30	N	N	7	20	N	15	N	300
FRR215	N	N	N	10	N	N	N	N	N	N	N	N	N	150
FRR222	N	N	5	50	15	50	N	N	15	N	N	5	N	200
FRR225	N	N	N	30	10	150	N	N	N	20	N	N	N	700
FRD001	N	N	10	20	10	50	N	N	15	50	N	7	N	200
FRD002	N	N	N	<10	N	70	N	N	N	30	N	N	N	200
FRD003	N	N	10	20	N	70	N	<20	20	N	N	10	N	150

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa	U-inst	S%	Ib-ppm aa
FRR035	<10	N	15	N	20	N	--	--	--	--	--	--	--	--	--
FRR046	300	N	50	N	70	N	--	--	--	--	--	--	--	--	--
FRR047	70	N	30	N	100	N	--	--	--	--	--	--	--	--	--
FRR048	300	N	50	N	70	N	--	--	--	--	--	--	--	--	--
FRR049	70	N	10	N	N	N	--	--	--	--	--	--	--	--	--
FRR056	<10	N	10	N	100	N	--	--	--	--	--	--	--	--	--
FRR062	200	N	30	N	50	N	--	--	--	--	--	--	--	--	--
FRR071	500	N	30	N	50	N	--	--	--	--	--	--	--	--	--
FRR072	500	N	30	N	50	N	--	--	--	--	--	--	--	--	--
FRR082	50	N	50	N	70	N	--	--	--	--	--	--	--	--	--
FRR097	300	N	50	N	100	N	N	--	--	--	--	--	--	--	--
FRR098	300	N	30	N	50	N	N	--	--	--	--	--	--	--	--
FRR099	300	N	20	200	50	N	--	--	--	--	--	--	--	--	--
FRR100	70	N	50	N	100	N	--	--	--	--	--	--	--	--	--
FRR102	300	N	30	N	100	N	--	--	--	--	--	--	--	--	--
FRR104	10	N	50	N	N	N	--	--	--	--	--	--	--	--	--
FRR111	<10	N	10	N	200	N	--	--	--	--	--	--	--	--	--
FRR119	N	N	N	N	N	N	--	--	--	--	--	--	--	--	--
FRR120	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	--
FRR129	200	N	30	N	150	N	--	--	--	--	--	--	--	--	--
FRR137	200	N	30	N	70	N	--	--	--	--	--	--	--	--	--
FRR141	70	N	20	N	150	N	--	--	--	--	--	--	--	--	--
FRR145	50	N	20	N	100	N	--	--	--	--	--	--	--	--	--
FRR149	20	N	30	N	50	N	--	--	--	--	--	--	--	--	--
FRR151	30	N	10	N	100	N	--	--	--	--	--	--	--	--	--
FRR152	<10	N	N	N	30	N	--	--	--	--	--	--	--	--	--
FRR153	100	N	50	N	200	N	--	--	--	--	--	--	--	--	--
FRR154	<10	N	15	N	70	N	--	--	--	--	--	--	--	--	--
FRR162	30	N	20	N	100	N	--	--	--	--	--	--	--	--	--
FRR164A	500	N	50	N	70	N	--	--	--	--	--	--	--	--	--
FRR164B	200	N	100	N	100	N	--	--	--	--	--	--	--	--	--
FRR166	50	N	20	N	200	N	--	--	--	--	--	--	--	--	--
FRR167	500	N	50	N	100	N	--	--	--	--	--	--	--	--	--
FRR172	50	N	20	N	150	N	--	--	--	--	--	--	--	--	--
FRR173	50	N	15	N	N	N	--	--	--	--	--	--	--	--	--
FRR174	<10	N	15	N	100	N	--	--	--	--	--	--	--	--	--
FRR178	70	N	30	N	100	N	--	--	--	--	--	--	--	--	--
FRR183	200	N	20	N	50	N	--	--	--	--	--	--	--	--	--
FRR209	70	N	50	N	200	N	--	--	--	--	--	--	--	--	--
FRR215	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	--
FRR222	30	N	30	N	500	N	--	--	--	--	--	--	--	--	--
FRR225	70	N	70	N	70	N	--	--	--	--	--	--	--	--	--
FRD001	50	N	30	N	100	N	--	--	--	--	--	--	--	--	--
FRD002	15	N	30	N	70	N	--	--	--	--	--	--	--	--	--
FRD003	100	N	30	N	300	N	--	--	--	--	--	--	--	--	--

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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
FRD004	42 18 13	107 22 28	3.00	.50	1.50	.500	700	N	N	N	20	700	3.0
FRD005	42 17 51	107 21 52	2.00	.50	1.00	.300	700	N	N	N	30	500	3.0
FRD006	42 17 18	107 20 9	7.00	1.00	1.50	1.000	1,000	N	N	N	20	1,500	2.0
FRD007	42 17 18	107 20 9	1.50	.30	1.00	.150	200	N	N	N	30	1,000	1.5
FRD009	42 17 49	107 18 5	1.00	.50	.15	.200	200	N	N	N	<10	1,000	1.5
FRD010	42 17 19	107 17 37	1.50	.50	.15	.200	300	N	N	N	15	1,000	2.0
FRD011	42 17 43	107 21 13	10.00	3.00	5.00	.700	2,000	<.5	N	N	30	500	1.0
FRD012	42 17 39	107 21 19	7.00	1.00	3.00	.700	1,000	N	N	N	30	1,000	2.0
FRD013	42 19 14	107 22 45	.70	.07	.20	.100	30	N	N	N	10	200	2.0
FRD014	42 17 9	107 19 42	10.00	7.00	7.00	.700	2,000	N	N	N	50	200	<1.0
FRD015	42 17 41	107 18 39	5.00	.70	1.50	.200	1,000	N	N	N	30	700	7.0
FRD016	42 16 43	107 19 2	2.00	.30	.70	.150	200	N	N	N	30	700	2.0
FRD020	42 17 0	107 15 10	5.00	1.00	2.00	.500	1,000	N	N	N	10	50	2.0
FRD021	42 16 53	107 15 20	10.00	7.00	5.00	.700	2,000	N	N	N	20	150	N
FRD025	42 17 37	107 17 24	5.00	1.00	1.50	.500	1,000	N	N	N	50	700	5.0
FRD026	42 17 27	107 17 22	2.00	.50	1.00	.200	500	N	N	N	20	700	3.0
FRD027	42 16 34	107 18 45	5.00	1.00	1.50	.500	1,000	N	N	N	50	1,000	1.0
FRD028	42 17 58	107 16 14	.50	.10	1.00	.050	150	N	N	N	<10	1,000	1.5
FRD029	42 17 8	107 17 17	5.00	1.00	3.00	.700	1,000	N	N	N	50	1,000	1.5
FRD030	42 17 49	107 15 55	1.50	.30	2.00	.100	200	N	N	N	10	700	1.0
FRD031	42 17 34	107 16 3	15.00	5.00	5.00	>1.000	2,000	N	N	N	20	500	1.0
FRD032	42 17 8	107 16 6	3.00	1.50	2.00	.300	700	N	N	N	30	1,000	2.0
FRD033	42 17 10	107 15 56	2.00	.30	1.00	.300	200	N	N	N	10	1,500	1.5
FRD034	42 17 3	107 15 32	20.00	7.00	7.00	>1.000	2,000	N	N	N	10	200	<1.0
FRD035	42 16 48	107 15 32	1.50	.70	1.00	.150	2,000	N	N	N	10	30	3.0
FRD036	42 16 53	107 14 52	10.00	1.50	10.00	1.000	1,500	N	N	N	10	50	1.0
FRD037	42 16 49	107 14 56	7.00	5.00	2.00	.500	1,000	N	N	N	20	700	1.0
FRD038	42 16 43	107 14 41	15.00	7.00	7.00	>1.000	2,000	N	N	N	10	300	<1.0
FRD039	42 16 30	107 14 56	10.00	10.00	5.00	.700	2,000	N	N	N	N	50	<1.0
FRD040	42 16 29	107 15 6	5.00	1.00	3.00	.300	1,000	N	N	N	<10	1,500	2.0
FRR040	42 15 40	107 16 24	.10	7.00	15.00	.007	300	N	N	N	30	<20	<1.0

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--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	Sc-ppm s	Sn-ppm s	Sr-ppm s
FRD004	N	N	10	70	15	70	N	<20	10	20	N	10	N	200
FRD005	N	N	10	<10	N	50	N	N	10	15	N	7	N	100
FRD006	N	N	20	20	20	150	N	N	20	50	N	15	N	200
FRD007	N	N	N	N	N	50	N	N	N	70	N	N	N	200
FRD009	N	N	5	N	10	N	N	N	5	30	N	N	N	100
FRD010	N	N	5	N	7	50	N	N	5	10	N	N	N	100
FRD011	N	N	30	70	50	30	N	N	50	20	N	30	N	300
FRD012	N	N	20	30	20	150	N	N	20	15	N	15	N	200
FRD013	N	N	N	N	5	N	N	30	N	10	N	5	N	N
FRD014	N	N	30	300	30	N	N	N	100	N	N	50	N	150
FRD015	N	N	15	15	20	100	N	N	10	30	N	10	N	150
FRD016	N	N	5	<10	N	20	N	N	N	50	N	N	N	100
FRD020	N	N	20	50	5	100	N	N	30	N	N	15	N	700
FRD021	N	N	30	500	100	N	5	N	150	N	N	50	N	200
FRD025	N	N	15	15	N	100	N	<20	10	20	N	10	N	200
FRD026	N	N	10	20	5	30	N	N	10	30	N	<5	N	150
FRD027	N	N	15	10	10	70	N	N	7	50	N	15	N	150
FRD028	N	N	N	N	10	N	N	N	N	20	N	N	N	500
FRD029	N	N	20	20	20	100	N	N	15	30	N	15	N	200
FRD030	N	N	N	50	N	20	N	N	N	20	N	N	N	500
FRD031	N	N	50	150	200	N	N	N	100	10	N	50	N	1,000
FRD032	N	N	15	50	30	70	N	N	20	10	N	20	N	200
FRD033	N	N	5	<10	5	50	N	N	N	70	N	15	N	100
FRD034	N	N	50	200	300	N	<5	N	100	N	N	70	N	150
FRD035	N	N	5	10	N	70	N	N	10	20	N	N	N	200
FRD036	N	N	15	15	N	50	N	N	5	20	N	15	N	200
FRD037	N	N	20	200	30	50	N	N	70	30	N	20	N	200
FRD038	N	N	50	150	70	N	N	N	70	N	N	50	N	300
FRD039	N	N	30	500	150	N	N	N	150	N	N	50	N	200
FRD040	N	N	15	70	15	50	N	N	20	70	N	10	N	200
FRR040	N	N	N	15	10	N	N	N	7	N	N	N	N	N

TABLE 4. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF ROCK SAMPLES, FERRIS MOUNTAINS, WYOMING--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa	U-inst	Sr	Pb-ppm aa
FRD004	70	N	50	N	200	N	--	--	--	--	--	--	--	--	--
FRD005	50	N	30	N	200	N	--	--	--	--	--	--	--	--	--
FRD006	100	N	50	N	500	N	--	--	--	--	--	--	--	--	--
FRD007	<10	N	15	N	70	N	--	--	--	--	--	--	--	--	--
FRD009	20	N	15	N	100	N	--	--	--	--	--	--	--	--	--
FRD010	20	N	15	N	200	N	--	--	--	--	--	--	--	--	--
FRD011	100	N	30	N	20	N	--	--	--	--	--	--	--	--	--
FRD012	100	N	30	N	100	N	--	--	--	--	--	--	--	--	--
FRD013	N	N	50	N	20	N	--	--	--	--	--	--	--	--	--
FRD014	200	N	20	N	30	N	--	--	--	--	--	--	--	--	--
FRD015	70	N	30	N	100	N	--	--	--	--	--	--	--	--	--
FRD016	<10	N	15	N	100	N	--	--	--	--	--	--	--	--	--
FRD020	100	N	50	N	150	N	--	--	--	--	--	--	--	--	--
FRD021	200	N	30	N	50	N	--	--	--	--	--	--	--	--	--
FRD025	70	N	50	N	500	N	--	--	--	--	--	--	--	--	--
FRD026	30	N	15	N	100	N	--	--	--	--	--	--	--	--	--
FRD027	100	N	30	N	100	N	--	--	--	--	--	--	--	--	--
FRD028	N	N	N	N	30	N	--	--	--	--	--	--	--	--	--
FRD029	150	N	30	N	150	N	--	--	--	--	--	--	--	--	--
FRD030	<10	N	10	N	70	N	--	--	--	--	--	--	--	--	--
FRD031	300	N	50	N	70	N	--	--	--	--	--	--	--	--	--
FRD032	70	N	30	N	150	N	--	--	--	--	--	--	--	--	--
FRD033	30	N	15	N	200	<100	--	--	--	--	--	--	--	--	--
FRD034	300	N	50	N	70	N	--	--	--	--	--	--	--	--	--
FRD035	20	N	15	N	100	N	--	--	--	--	--	--	--	--	--
FRD036	200	N	50	N	1,000	N	--	--	--	--	--	--	--	--	--
FRD037	100	N	20	N	150	N	--	--	--	--	--	--	--	--	--
FRD038	300	N	20	N	50	N	--	--	--	--	--	--	--	--	--
FRD039	200	N	15	N	20	N	--	--	--	--	--	--	--	--	--
FRD040	70	N	30	N	100	N	--	--	--	--	--	--	--	--	--
FRR040	<10	N	N	N	N	N	--	--	--	--	--	--	--	--	--

TABLE 5. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF STREAM-SEDIMENT SAMPLES, FERRIS MOUNTAINS, WYOMING
[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
FRR004	42 15 46	107 17 23	.2	.30	1.0	.10	150	N	N	N	20	200	<1.0
FRR014	42 15 59	107 17 18	.5	.50	.7	.20	200	N	N	N	20	300	<1.0
FRR019	42 15 45	107 21 37	.7	.70	7.0	.30	200	N	N	N	70	300	1.5
FRR020	42 16 20	107 21 25	.7	.70	5.0	.20	150	N	N	N	100	300	1.5
FRR025	42 15 48	107 18 37	1.0	1.00	7.0	.15	300	<.5	N	N	100	300	1.5
FRR030	42 15 54	107 19 9	3.0	3.00	7.0	.50	700	N	N	N	200	300	2.0
FRR031	42 15 41	107 17 12	.3	.70	3.0	.15	100	N	N	N	15	200	1.0
FRR034	42 16 34	107 17 53	1.0	7.00	10.0	.20	500	N	N	N	150	300	1.5
FRR038	42 16 39	107 17 28	2.0	.50	1.0	.30	500	N	N	N	100	700	2.0
FRR039	42 16 35	107 17 26	1.0	.50	.7	.20	300	N	N	N	70	500	1.5
FRR052	42 14 58	107 15 20	.5	.30	.3	.10	150	N	N	N	15	300	1.0
FRR053	42 14 39	107 14 36	.3	.30	.5	.10	100	N	N	N	15	200	<1.0
FRR078	42 14 22	107 11 22	1.5	.70	1.0	.30	300	N	N	N	30	500	1.0
FRR079	42 14 4	107 11 36	1.5	.50	1.0	.30	200	N	N	N	100	700	1.0
FRR027	42 14 19	107 18 50	3.0	3.00	7.0	.50	700	1.0	N	N	200	700	3.0
FRR065	42 14 14	107 13 38	1.0	.70	1.0	.15	300	N	N	N	100	700	1.5
FRR085	42 14 17	107 12 24	.7	.15	.3	.15	200	N	N	N	20	500	1.0
FRR087	42 14 35	107 11 44	2.0	.50	.7	.30	300	N	N	N	70	1,000	2.0
FRR091	42 14 26	107 10 38	1.5	5.00	5.0	.20	700	N	N	N	30	1,000	2.0
FRR108	42 17 53	107 18 4	5.0	1.00	2.0	.50	1,000	N	N	N	50	700	3.0
FRR115	42 17 44	107 18 30	2.0	.30	.5	.20	200	N	N	N	50	700	3.0
FRR116	42 17 49	107 19 5	1.0	.70	1.5	.20	300	N	N	N	50	300	1.5
FRR121	42 18 30	107 20 10	1.5	.70	1.0	.20	500	N	N	N	50	500	1.5
FRR122	42 18 11	107 19 12	1.5	.50	.7	.20	500	N	N	N	30	500	1.5
FRR123	42 17 34	107 19 16	1.5	1.00	1.5	.30	500	N	N	N	70	700	3.0
FRR124	42 17 33	107 19 18	.7	.50	.5	.15	300	N	N	N	30	500	1.5
FRR125	42 17 34	107 19 20	1.0	.50	.7	.20	300	N	N	N	30	500	2.0
FRR127A	42 17 14	107 19 10	1.0	1.00	1.0	.30	300	N	N	N	100	500	1.5
FRR127B	42 17 14	107 19 12	2.0	.70	.7	.50	500	N	N	N	150	500	2.0
FRR136	42 17 19	107 18 11	2.0	.50	.5	.20	500	N	N	N	70	500	2.0
FRR144	42 18 40	107 18 58	1.0	1.00	3.0	.20	300	N	N	N	70	500	1.5
FRR146	42 18 58	107 19 23	2.0	.70	1.0	.30	500	N	N	N	70	500	2.0
FRR147	42 18 58	107 20 49	2.0	.50	1.0	.50	700	N	N	N	50	700	2.0
FRR148	42 18 43	107 19 39	1.5	1.50	2.0	.30	300	N	N	N	100	500	1.5
FRR150	42 17 58	107 17 14	3.0	1.00	2.0	.30	1,000	N	N	N	50	700	3.0
FRR155	42 18 4	107 15 42	3.0	1.00	3.0	.50	1,000	N	N	N	30	700	3.0
FRR157	42 17 38	107 16 31	3.0	1.00	2.0	.50	1,000	N	N	N	50	1,000	5.0
FRR158	42 14 19	107 18 50	2.0	3.00	10.0	.50	500	<.5	N	N	200	700	2.0
FRR159	42 17 31	107 16 26	3.0	1.50	1.5	.50	1,500	N	N	N	70	700	5.0
FRR160	42 17 23	107 16 29	5.0	1.00	3.0	.70	1,500	N	N	N	30	700	3.0
FRR161	42 17 22	107 16 27	3.0	1.00	2.0	.50	1,000	N	N	N	50	1,000	3.0
FRR163	42 17 38	107 15 30	10.0	2.00	3.0	1.00	1,500	.5	N	N	30	500	3.0
FRR138	42 18 10	107 20 46	.7	.70	1.0	.15	200	N	N	N	70	500	1.0
FRR169	42 18 11	107 20 50	2.0	1.00	1.0	.50	700	N	N	N	100	1,000	1.5
FRR170A	42 18 8	107 20 50	3.0	1.50	1.5	.70	1,000	<.5	N	N	150	1,000	3.0

TABLE 5. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF STREAM-SEDIMENT SAMPLES, FERRIS MOUNTAINS, WYOMING--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	Sc-ppm s	Sn-ppm s	Sr-ppm s
FRR004	N	N	N	10	N	N	N	N	N	N	N	5	N	N
FRR014	N	N	N	20	5	N	N	N	10	N	N	<5	N	N
FRR019	N	N	N	30	10	N	N	N	10	N	N	5	N	200
FRR020	N	N	N	100	10	N	N	N	10	N	N	5	N	100
FRR025	N	N	N	20	7	N	N	N	10	N	N	5	N	100
FRR030	N	N	15	100	20	N	N	N	50	20	N	15	N	200
FRR031	N	N	N	50	5	50	N	N	5	N	N	5	N	N
FRR034	N	N	7	100	20	N	N	N	30	10	N	7	N	150
FRR038	N	N	5	30	10	N	N	<20	15	10	N	7	N	150
FRR039	N	N	5	20	5	N	N	N	10	N	N	N	N	100
FRR052	N	N	N	15	<5	N	N	N	5	N	N	N	N	N
FRR053	N	N	N	10	N	N	N	N	5	N	N	N	N	N
FRR078	N	N	10	30	15	N	N	N	10	N	N	5	N	200
FRR079	N	N	N	50	10	N	N	N	10	N	N	<5	N	300
FRR027	N	N	10	100	20	50	N	<20	30	70	N	15	N	500
FRR065	N	N	5	20	7	N	N	N	10	N	N	N	N	100
FRR085	N	N	N	15	7	N	N	N	5	N	N	N	N	100
FRR087	N	N	7	30	10	N	N	N	15	15	N	7	N	200
FRR091	N	N	7	20	15	N	N	N	20	30	N	7	N	300
FRR108	N	N	15	50	30	70	N	20	30	20	N	15	N	150
FRR115	N	N	5	20	7	N	N	<20	10	10	N	7	N	100
FRR116	N	N	5	20	10	N	N	N	7	N	N	N	N	N
FRR121	N	N	5	30	10	N	N	N	10	10	N	5	N	100
FRR122	N	N	5	30	15	N	N	N	10	N	N	5	N	100
FRR123	N	N	5	50	15	N	N	N	15	10	N	7	N	150
FRR124	N	N	N	20	10	N	N	N	5	N	N	N	N	N
FRR125	N	N	5	20	15	N	N	N	7	N	N	7	N	N
FRR127A	N	N	5	50	10	N	N	N	10	N	N	5	N	100
FRR127B	N	N	10	50	20	70	N	<20	20	N	N	10	N	150
FRR136	N	N	7	20	15	N	N	N	10	N	N	7	N	100
FRR144	N	N	5	30	10	50	N	N	10	N	N	5	N	100
FRR146	N	N	10	30	20	N	N	N	20	20	N	10	N	200
FRR147	N	N	20	20	15	500	N	N	20	15	N	10	N	100
FRR148	N	N	10	30	50	20	N	<20	20	N	N	5	N	100
FRR150	N	N	20	70	30	100	N	<20	50	50	N	15	N	200
FRR155	N	N	15	50	30	150	N	<20	20	30	N	20	N	300
FRR157	N	N	15	70	20	70	N	<20	30	30	N	15	N	300
FRR158	N	N	10	100	20	70	N	N	30	30	N	10	N	300
FRR159	N	N	20	70	30	70	N	<20	30	50	N	15	N	200
FRR160	N	N	20	50	30	70	N	<20	30	20	N	20	N	200
FRR161	N	N	15	70	30	70	N	N	30	50	N	15	N	200
FRR163	N	N	30	50	20	20	N	<20	20	15	N	20	N	200
FRR138	N	N	N	30	5	N	N	N	7	N	N	N	N	N
FRR169	N	N	5	50	15	20	N	<20	15	10	N	10	N	100
FRR170A	N	N	10	100	30	50	N	<20	30	50	N	15	N	200

TABLE 5. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF STREAM-SEDIMENT SAMPLES, FERRIS MOUNTAINS, WYOMING--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa	U-inst	S%	Pb-ppm aa
FRR004	15	N	10	N	700	N	--	--	--	--	--	--	--	--	--
FRR014	20	N	15	N	1,000	N	--	--	--	--	--	--	--	--	--
FRR019	50	N	20	N	1,000	N	--	--	--	--	--	--	--	--	--
FRR020	30	N	15	N	1,000	N	--	--	--	--	--	--	--	--	--
FRR025	20	N	10	N	500	N	--	--	--	--	--	--	--	--	--
FRR030	70	N	30	N	300	N	--	--	--	--	--	--	--	--	--
FRR031	20	N	10	N	500	N	--	--	--	--	--	--	--	--	--
FRR034	30	N	30	N	500	N	--	--	--	--	--	--	--	--	--
FRR038	30	N	30	N	1,000	N	--	--	--	--	--	--	--	--	--
FRR039	30	N	10	N	300	N	--	--	--	--	--	--	--	--	--
FRR052	15	N	<10	N	300	N	--	--	--	--	--	--	--	--	--
FRR053	10	N	10	N	300	N	--	--	--	--	--	--	--	--	--
FRR078	30	N	15	N	200	N	--	--	--	--	--	--	--	--	--
FRR079	30	N	15	N	500	N	--	--	--	--	--	--	--	--	--
FRR027	100	N	30	<200	200	N	--	N	N	.2	<2	65	--	--	--
FRR065	30	N	10	N	200	N	--	N	N	N	<2	10	--	--	--
FRR085	15	N	10	N	700	N	--	N	N	N	<2	10	--	--	--
FRR087	50	N	20	N	700	N	--	5	N	.1	<2	20	--	--	--
FRR091	30	N	15	N	1,000	N	--	<5	N	.1	<2	25	--	--	--
FRR108	100	N	30	N	1,000	N	--	N	N	.2	<2	45	--	--	--
FRR115	70	N	30	N	1,000	N	--	N	N	N	<2	10	--	--	--
FRR116	30	N	15	N	700	N	--	N	N	N	<2	15	--	--	--
FRR121	50	N	15	N	300	N	--	N	N	.1	<2	20	--	--	--
FRR122	50	N	15	N	300	N	--	N	N	.1	<2	20	--	--	--
FRR123	50	N	20	N	300	N	--	N	N	N	<2	20	--	--	--
FRR124	15	N	10	N	200	N	--	N	N	N	<2	10	--	--	--
FRR125	20	N	30	N	500	N	--	N	N	N	<2	15	--	--	--
FRR127A	30	N	10	N	1,000	N	--	N	N	N	<2	25	--	--	--
FRR127B	70	N	50	N	700	N	--	N	N	.1	<2	30	--	--	--
FRR136	30	N	20	N	700	N	--	N	N	.1	<2	15	--	--	--
FRR144	30	N	20	N	200	N	--	N	N	N	<2	15	--	--	--
FRR146	70	N	20	N	200	N	--	<5	N	.1	<2	25	--	--	--
FRR147	100	N	30	N	1,000	N	--	N	N	N	<2	20	--	--	--
FRR148	50	N	20	N	300	N	--	N	N	N	<2	20	--	--	--
FRR150	100	N	70	N	1,000	N	--	N	N	.1	<2	45	--	--	--
FRR155	100	N	70	N	>1,000	N	--	N	N	.1	<2	40	--	--	--
FRR157	100	N	70	N	1,000	N	--	N	N	.2	<2	40	--	--	--
FRR158	70	N	50	N	300	N	--	N	N	.1	<2	60	--	--	--
FRR159	100	N	50	N	700	N	--	<5	N	.2	<2	80	--	--	--
FRR160	150	N	70	N	500	N	--	N	N	.1	2	40	--	--	--
FRR161	100	N	70	N	1,000	N	--	N	N	.2	<2	35	--	--	--
FRR163	200	N	50	N	300	N	--	N	N	N	<2	30	--	--	--
FRR138	15	N	10	N	300	N	--	N	N	N	2	10	--	--	--
FRR169	70	N	20	N	500	N	--	N	1	N	<2	25	--	--	--
FRR170A	100	N	50	N	700	N	--	N	N	.1	<2	30	--	--	--

TABLE 5. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF STREAM-SEDIMENT SAMPLES, FERRIS MOUNTAINS, WYOMING--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
FRR170B	42 18 8	107 20 51	3.0	1.50	1.5	.50	700	N	N	N	150	1,000	3.0
FRR170C	42 18 8	107 20 53	2.0	.70	1.0	.50	500	N	N	N	100	1,000	3.0
FRR171	42 16 46	107 14 14	5.0	1.50	3.0	1.00	1,500	N	N	N	30	700	3.0
FRR177	42 16 40	107 14 22	7.0	1.50	3.0	1.00	1,500	N	N	N	30	1,000	3.0
FRR184	42 18 18	107 21 17	3.0	1.00	.7	.70	1,000	N	N	N	150	1,000	2.0
FRR185	42 18 13	107 21 26	3.0	1.00	.5	1.00	1,000	N	N	N	150	1,000	2.0
FRR186	42 18 14	107 21 28	2.0	.70	.7	.50	700	<.5	N	N	100	700	2.0
FRR187	42 15 56	107 13 9	3.0	1.00	2.0	1.00	1,000	.5	N	N	50	700	2.0
FRR188	42 15 51	107 12 52	3.0	1.00	1.5	.70	1,000	.5	N	N	70	1,000	3.0
FRR189	42 16 1	107 12 28	3.0	1.00	2.0	.70	1,000	N	N	N	50	700	2.0
FRR190	42 16 4	107 12 10	5.0	1.50	3.0	1.00	1,000	N	N	N	50	1,000	3.0
FRR191	42 15 57	107 11 52	7.0	2.00	2.0	.50	1,000	N	N	N	15	500	3.0
FRR192	42 15 54	107 12 4	5.0	1.00	3.0	.70	1,000	<.5	N	N	50	700	3.0
FRR194	42 15 48	107 11 44	5.0	1.50	3.0	.70	1,500	N	N	N	30	1,000	3.0
FRR195	42 15 3	107 10 19	3.0	1.00	2.0	.70	1,000	N	N	N	50	1,000	2.0
FRR196	42 15 6	107 10 14	7.0	1.50	3.0	1.00	1,500	.5	<200	N	20	1,000	3.0
FRR197	42 15 44	107 10 9	5.0	1.00	2.0	.50	1,000	N	N	N	50	1,000	2.0
FRR205	42 15 47	107 10 55	5.0	1.00	2.0	.70	2,000	N	N	N	50	500	3.0
FRR208	42 15 48	107 11 4	5.0	1.50	3.0	.70	1,000	N	N	N	70	700	3.0

TABLE 5. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF STREAM-SEDIMENT SAMPLES, FERRIS MOUNTAINS, WYOMING--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	Sc-ppm s	Sn-ppm s	Sr-ppm s
FRR170B	N	N	10	70	30	50	N	<20	20	30	N	15	N	200
FRR170C	N	N	7	50	10	20	N	N	15	10	N	10	N	100
FRR171	N	N	20	70	20	50	N	<20	30	30	N	30	N	200
FRR177	N	N	20	70	20	150	5	<20	30	50	N	30	N	150
FRR184	N	N	15	100	20	70	N	N	50	20	N	15	N	200
FRR185	N	N	15	100	20	50	N	<20	30	30	N	10	N	150
FRR186	N	N	10	70	30	50	N	<20	30	70	N	10	N	100
FRR187	N	N	15	70	30	150	<5	<20	30	70	N	15	N	200
FRR188	N	N	15	70	30	150	N	<20	30	70	N	10	N	200
FRR189	N	N	15	100	20	50	N	<20	50	50	N	20	N	300
FRR190	N	N	20	150	30	50	N	<20	50	70	N	20	N	200
FRR191	N	N	20	100	30	30	N	<20	50	150	N	20	15	200
FRR192	N	N	20	70	50	70	N	<20	30	100	N	20	N	300
FRR194	<10	N	20	100	20	30	N	20	70	100	N	20	20	300
FRR195	N	N	15	50	30	70	N	<20	20	30	N	15	N	300
FRR196	N	N	20	100	50	100	N	<20	50	70	N	20	N	200
FRR197	N	N	15	70	20	70	N	<20	30	70	N	20	N	300
FRR205	N	N	15	70	20	50	N	<20	30	30	N	20	N	200
FRR208	N	N	15	100	20	70	N	<20	50	50	N	20	N	300

TABLE 5. RESULTS OF SPECTROGRAPHIC AND CHEMICAL ANALYSIS OF STREAM-SEDIMENT SAMPLES, FERRIS MOUNTAINS, WYOMING--Continued

Sample	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa	U-inst	S%	Pb-ppm aa
FRR170B	70	N	50	N	500	N	--	N	N	N	<2	30	--	--	--
FRR170C	50	N	50	N	1,000	N	--	N	N	N	<2	20	--	--	--
FRR171	150	N	70	N	1,000	N	--	N	N	N	<2	40	--	--	--
FRR177	200	N	70	N	1,000	N	--	N	N	N	<2	35	--	--	--
FRR184	70	N	30	N	500	N	--	N	N	.1	<2	50	--	--	--
FRR185	70	N	30	N	500	N	--	N	N	N	<2	35	--	--	--
FRR186	70	N	50	N	300	N	--	<5	N	.4	<2	60	--	--	--
FRR187	100	N	50	N	500	N	N	N	N	.1	<2	35	--	--	--
FRR188	70	N	70	N	300	N	N	N	N	.1	<2	30	--	--	--
FRR189	150	N	70	N	300	N	--	N	N	.1	<2	25	--	--	--
FRR190	150	N	50	N	300	N	--	N	N	.1	<2	40	--	--	--
FRR191	150	N	30	N	200	N	N	N	N	.1	<2	60	--	--	--
FRR192	150	N	70	N	100	N	N	N	N	.1	<2	45	--	--	--
FRR194	150	N	100	N	700	N	--	N	N	.1	<2	40	--	--	--
FRR195	150	N	50	N	500	N	N	30	N	.2	<2	40	--	--	--
FRR196	200	N	70	N	200	N	N	170	N	N	<2	60	--	--	--
FRR197	150	N	70	N	150	N	--	N	N	.1	<2	40	--	--	--
FRR205	150	N	70	N	1,000	N	--	N	N	.2	<2	30	--	--	--
FRR208	150	N	70	N	700	N	--	N	N	.1	<2	30	--	--	--