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Analyses and descriptions of geochemical samples from the Rich Mountain Roadless Area Fannin and Gilmer Counties, Georgia

by

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This report is preliminary and has not been reviewed for conformity with United States Geological Survey editorial standards and stratigraphic nomenclature.

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1/ USGS, Reston, Virginia

2/ USGS, Denver, Colorado

CONTENTS

ILLUSTRATIONS

TABLES

STUDIES RELATED TO WILDERNESS

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to survey certain areas on Federal lands to determine their mineral values, if any, that may be present. 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 Rich Mountain Roadless Area (USFS No. 08-143), Chattahoochee National Forest, Fannin and Gilmer Counties, Georgia. The area was classified as a further planning area during the Second Roadless Area Review and Evaluation (RARE II) by the Forest Service, January 1979.

ABSTRACT

Semi-quantitative spectrographic analyses for 31 elements on rock, soil, fine-grained stream sediment, bulk stream sediment, and panned stream sediment samples collected in the Rich Mountain Roadless Area, Fannin and Gilmer Counties, Georgia, are reported here. Atomic absorption analyses for gold and fluorometric analyses for uranium are also reported. Brief descriptions of all rock samples analyzed are included.

INTRODUCTION

The analyses reported here are on 201 rock, 219 soil, 78 bulk stream-sediment, 57 stream sediments that were seived to minus 200 mesh (0.004 in or 0.007 mm), and 41 panned concentrate samples. These samples were collected in October, 1981 by M.P. Foose, C.M. Sears, C.E. Brown, J.W. Whitlow, S.W. Nicholson, P.J. Atelsek, R.P. Koeppen, and Steve Ludington. Maps showing samples localities and discussion of the analytical results are presented in figures 1-3, and locations for all samples are given in Universal Transverse Mercator (UTM) Coordinates in Appendix 2. The X-coordinate is the easting value in meters; the Y-coordinate is the northing value in meters. Rocks analyzed include biotite schist, meta-arkose, shale, vein quartz, trondhjemite, and calc-silicates. A map showing sample localities, the distribution of elements, and statistical data for this area is given by Foose and Sears (MF-83-1586-B)

Sampling procedures

Drainage basins in the study area were sampled in three ways: 1) fine-grained sediments were collected at each sample site. In the laboratory, the samples were dried and seived to minus 140-mesh (0.004 in or 0.105 mm) for analysis; 2) bulk stream samples that were 1- to 2-liters in size were collected at selected sites, then dried and seived to minus 200-mesh (0.003 in or 0.007 mm) for analysis; and, 3) J.W. Whitlow panned heavy mineral concentrates from 41 of the stream sediment sample sites. The panned concentrates were further separated into a light fraction and a heavy fraction by C.M. Sears, using bromoform of a density of 2.86 g/cc. Magnetite was removed with a hand magnet and the remaining sample was separated into magnetic and non-magnetic fractions by means of isodynamic separator at a setting of 0.6 amperes. Only the non-magnetic fraction was spectrographically analyzed.

Rock samples that are representative of the major rock types in the area were collected and analyzed. The freshest parts of exposures were collected, although a few samples are from weathered rock. These samples have been noted in the rock descriptions. (Table 1.) Rock samples were crushed to approximately 0.25 in (6 mm) and pulverized to minus 140-mesh (0.004 in or 0.105 mm) in a vertical grinder having ceramic plates.

The soil samples are grab samples collected from the A_2 or upper B soil zone, just below the dark, organic-rich surface soil (A_1) zone. Soils were dried, sieved to minus 80-mesh (0.007 in or 0.177 mm), then pulverized to minus 140-mesh (0.004 in or 0.105 mm).

Analytical techniques

Each sample was analyzed semi-quantitatively for 31 elements by means of a six-step, D.C. (direct-current) arc, optical-emission spectrographic method (Grimes and Marranzino, 1968) by M.S. Erickson and G.W. Day. The samples were also analyzed by atomic absorption techniques for gold and zinc (Ward and others, 1969) by D.L. Kelley, L.J. Sherlock, and W.C. Martin, and by fluorimetric methods for uranium (Cantanni, Rose, and DeSesa, 1956) by W.C. Martin and A.L. Gruzensky.

Although areas adjacent to the Roadless Area have produced placer gold in the past (Yeates and others, 1896; LaForge and Phalen, 1913), no gold was detected by a careful visual inspection of the panned concentrates. The lower spectrographic limits of detection for silver and gold are 0.5 ppm and 10 ppm respectively; however, gold present close to 10 ppm might be considered economically valuable. To detect gold less than 10 ppm, atomic absorption analysis (lower detection limit .05 ppm) is required, but it is costly and time-consuming and consequently is not routinely done. Therefore, because silver and gold commonly occur together, samples having detectable silver were selected for re-analysis for gold by atomic absorption. Because no samples had detectable silver, most samples were not analyzed for gold by atomic absorption. However, atomic absorption analyses for gold were performed on a total of nineteen stream sediment and rock samples (see page 17) taken from drainages closest to the gold-producing area to the west, and no gold was detected in these.

The spectrographic semi-quantitative values are reported by a six-step method that divides every order of magnitude of concentration of an element into six intervals with approximate geometric mid-points at .10, .15, .20, .30, .50, and .70. Analyses are reported as these mid-point values and have an expected precision such that the actual concentration is within the reported or adjoining interval 83 percent of the time and within two adjoining intervals 96 percent of the time (Motooka and Grimes, 1976).

References

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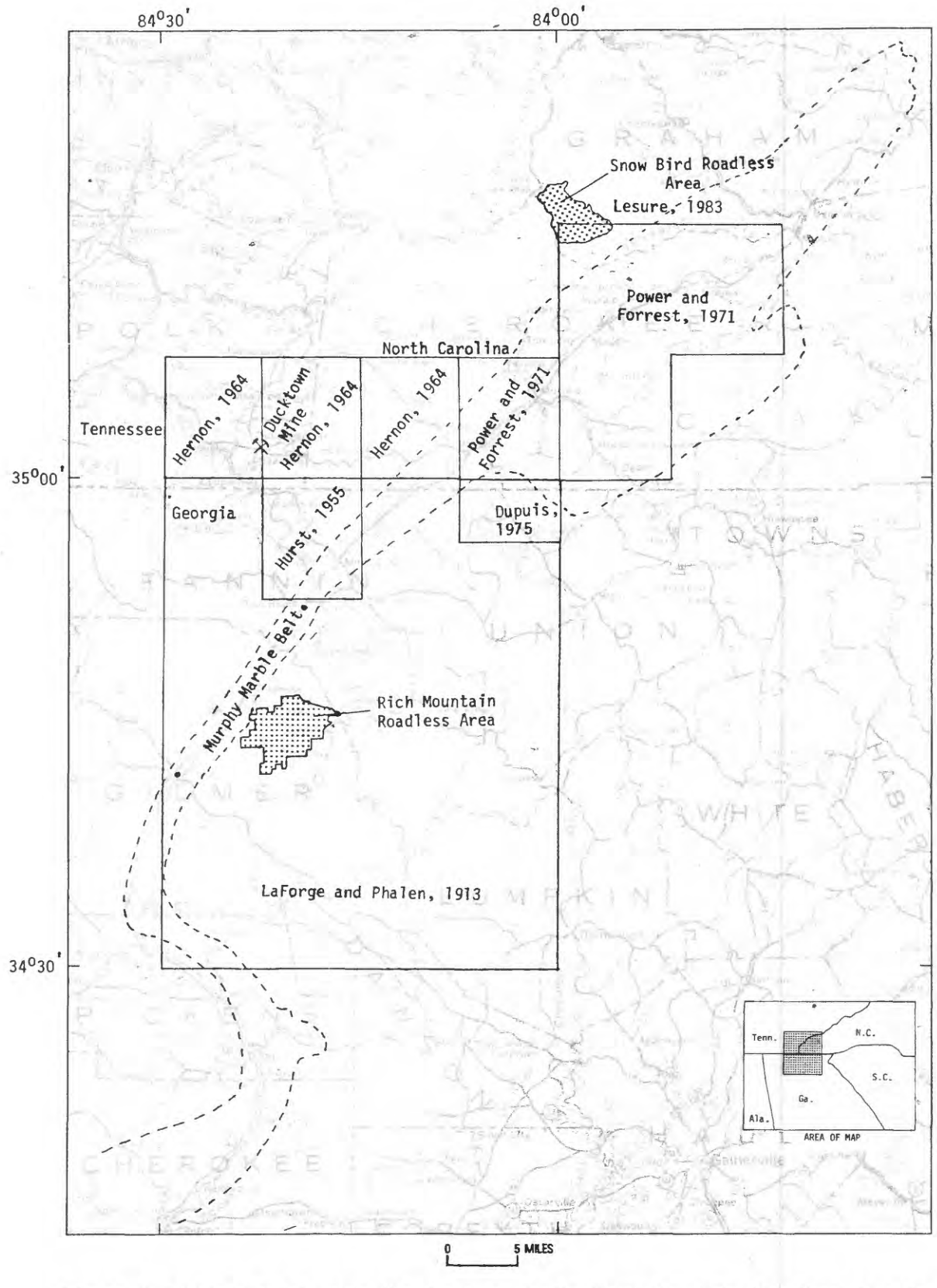

Figure 1.—Index map showing the location of the Rich Mountain Roadless Area in northern Georgia and sources for relevant geologic data.

TABLE 1.

Rock Sample Descriptions

GR004	fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR006	medium-grained feldspar-quartz meta-arkose; Hothouse Fm.
GR007	very fine-grained biotite schist; Hothouse Fm.
GR010	very fine-grained garnet-biotite schist; Hothouse Fm.
GR013	fine-grained feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Hothouse Fm.
GR015	fine-grained garnet-biotite-quartz meta-arkose; Hothouse Fm.
GR018	medium-grained-muscovite-cross-biotite schist; Hothouse Fm.
GR026	fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR028	fine-grained quartz-biotite schist; Dean Fm.
GR031	medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR033	medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR034	medium-grained, quartz-muscovite-cross-biotite schist; Dean Fm.
GR036	fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR040	medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR045	vein quartz
GR047	medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR051	vein quartz
GR053	fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR055	medium-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR056	coarse quartz-pebble conglomerate with fine-grained biotite matrix; Hothouse Fm.
GR059	medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR064	fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Dean Fm.
GR065	vein quartz
GR066	fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Dean Fm.
GR068	medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR070	medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR073	fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Dean Fm.
GR077	fine-grained biotite-feldspar-quartz meta-arkose with small (<1 cm) feldspar clasts; Dean Fm.
GR083	medium-grained biotite schist; Hothouse Fm.
GR085	medium-grained biotite schist; Hothouse Fm.
GR090	medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR093	fine-grained biotite-feldspar-quartz meta-arkose with well-developed crenulation cleavage; Hothouse Fm.
GR095	fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Hothouse Fm.
GR101	coarse quartz-pebble conglomerate with fine-grained biotite matrix; Dean Fm.
GR109	medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR111	fine-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR113	very fine-grained muscovite-biotite schist; Dean Fm.
GR116	laminated gray shale; Nantahela Fm.

GR117 fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR119 vein quartz
GR121 medium-grained chlorite-hornblende-biotite-feldspar-quartz calc-silicate
GR125 fine-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR128 fine-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR130 fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR133 medium-grained quartz-muscovite-cross-biorite schist; Hothouse Fm.
GR135 fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Hothouse Fm.
GR136 very fine-grained biotite schist; Hothouse Fm.
GR141 fine-grained biotite schist; Hothouse Fm.
GR152 very fine-grained green quartzite with well-developed phyllitic partings; Hothouse Fm.
GR153 fine-grained quartz-biotite schist; Hothouse Fm.
GR154 vein quartz
GR156 fine-grained quartz-biotite schist; Hothouse Fm.
GR157 fine-grained quartz-biotite schist; Hothouse Fm.
GR160 fine-grained quartz-biotite schist; Hothouse Fm.
GR166 fine-grained quartz-feldspar meta-arkose; Hothouse Fm.
GR169 medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR170 fine-grained quartz-biotite schist; Hothouse Fm.
GR201 fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Hothouse Fm.
GR202 vein quartz
GR203 vein quartz
GR204 medium-grained chlorite-hornblende-feldspar-biotite-quartz calc-silicate
GR206 fine-grained quartz-biotite-schist; Hothouse Fm.
GR207 fine-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR209 fine-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR210 vein quartz
GR212 fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts
GR213 medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR215 vein quartz
GR219 fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR223 medium-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR226 very fine-grained quartz-muscotite-cross-biotite schist; Hothouse Fm.
GR227 fine-grained muscovite-cross-biotite schist; Hothouse Fm.
GR230 very fine-grained biotite schist; Hothouse Fm.
GR231 vein quartz
GR232 fine-grained quartz-biotite schist; Hothouse Fm.
GR233 fine-grained quartz-biotite schist; Hothouse Fm.
GR235 fine-grained quartz-biotite schist; Hothouse Fm.
GR237 medium-grained feldspar-quartz-biotite schist; Hothouse Fm.
GR238 medium-grained muscovite schist; Hothouse Fm.
GR240 fine-grained quartz-biotite schist; Hothouse Fm.
GR241 medium-grained muscovite-biotite schist; Hothouse Fm.
GR242 medium-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR246 medium-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR248 coarse quartz-pebble conglomerate with fine-grained biotite matrix; Dean Fm.

GR249 very fine-grained biotite schist with minor sulfides; Nantahela Fm?
GR250 very fine-grained biotite schist with minor sulfides, Nantahela Fm?
GR251 very fine-grained biotite schist with minor sulfides, Nantahela Fm?
GR252 vein quartz
GR253 vein quartz
GR254 fine-grained grey quartzite with very fine-grained biotite matrix; Nantahela Fm?
GR257 fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR259 medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR260 fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR261 vein quartz
GR307 medium-grained biotite-feldspar-quartz-meta-arkose, Hothouse Fm.
GR319 medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR322 medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR323 medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR324 medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR326 vein quartz
GR329 fine-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR333 fine-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR338 fine-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR340 fine-grained biotite-schist; Hothouse Fm.
GR341 fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR343 fine-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR346 very fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR348 fine-grained biotite-quartz meta-arkose; Hothouse Fm.
GR352 medium-grained biotite schist; Hothouse Fm.
GR354 medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR356 medium-grained garnet-quartz-muscovite-cross-biotite schist, Dean Fm.
GR371 fine-grained muscovite-cross-biotite schist; Dean Fm.
GR400 altered fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR401 fine-grained biotite schist; Hothouse Fm.
GR403 coarse quartz-pebble conglomerate with fine-grained biotite matrix; Hothouse Fm.
GR405 medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR409 altered fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR410 altered fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR411 medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR413 medium-grained hornblende-quartz-feldspar intrusive rock; trondhjemite
GR416 medium-grained kyanite-muscovite-cross-biotite schist; Dean Fm.
GR417 fine-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR418 fine-grained quartz-biotite schist; Dean Fm.
GR420 fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Dean Fm.
GR421 gray shale; Nantahela Fm.
GR422 fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts, Hothouse Fm.
GR423 fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Hothouse Fm.
GR425 fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Hothouse Fm.

GR426 medium-grained hornblende-quartz-feldspar intrusive rock; trondhjemite
GR428 very fine-grained biotite schist; Hothouse Fm.
GR430 fine-grained quartz-biotite schist; Hothouse Fm.
GR431 very fine-grained biotite schist; Hothouse Fm.
GR432 very fine-grained muscovite-biotite schist; Hothouse Fm.
GR434 medium-grained quartz-muscovit-cross-biotite schist; Hothouse Fm.
GR437 medium-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR438 very fine-grained biotite schist; Hothouse Fm.
GR439 fine-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR441 medium-grained feldspar-quartz-meta-arkose; Hothouse Fm.
GR442 fine-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR443 fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR444 fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR445 fine-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR446 medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR447 medium-grained quartz-muscovite-cross-biotite schist; Dean Fm.
GR448 medium-grained kyanite-quartz-muscovite-cross-biotite schist; Dean Fm.
GR451 medium-grained quartz-muscovite-cross-biotite schist, Dean Fm.
GR453 fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR458 medium-grained feldspar-quartz meta-arkose; Dean Fm.
GR459 medium-grained granular feldspar-quartz meta-arkose; Dean Fm.
GR460 fine-grained biotite schist; Hothouse Fm.
GR462 medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR463 medium-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR465 medium-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR466 sheared coarse quartz-pebble conglomerate; Hothouse Fm.
GR468 medium-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR501 fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR502 medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR507 very fine-grained biotite schist; Hothouse Fm.
GR510 fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR513 medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR514 coarse quartz-pebble conglomerate with fine-grained biotite matrix; Dean Fm.
GR515 fine-grained quartz-biotite schist with thinly interbedded biotite layers; Dean Fm.
GR519 vein quartz
GR527 altered medium-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR539 medium-grained granular feldspar-quartz meta-arkose; Dean Fm..
GR544 fine-grained biotite-feldspar-quartz meta-arkose with small (<.1 cm) feldspar clasts; Hothouse Fm.
GR549 fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR550 medium-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR551 medium-grained biotite-muscovite schist; Hothouse Fm.
GR554 coarse quartz-pebble conglomerate with fine-grained biotite matrix; Dean Fm.
GR557 medium-grained conglomerate of quartz and feldspar clasts (up to .4 cm) in fine-grained biotite matrix; Dean Fm.
GR558 medium-grained granular feldspar-quartz meta-arkose; Dean Fm.
GR562 fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR563 very fine-grained biotite schist; Hothouse Fm.

GR564	highly altered medium-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR566	medium-grained hornblende-quartz-feldspar intrusive rock; trondhjemite
GR701	fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR703	fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR704	medium-grained quartz-biotite schist; Hothouse Fm.
GR706	medium-grained quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR709	very fine-grained quartz-biotite schist; Hothouse Fm.
GR712	medium-grained garnet-quartz-muscovite-biotite schist; Hothouse Fm.
GR713	fine-grained quartz-biotite schist; Hothouse Fm.
GR714	fine-grained quartz-muscovite-biotite schist; Hothouse Fm.
GR715	fine-grained quartz-muscovite-biotite schist; Hothouse Fm.
GR720	vein quartz
GR722	medium-grained muscovite-biotite schist; Dean Fm.
GR724	fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR728	medium-grained garnet-quartz-muscovite-cross-biotite schist; Dean Fm.
GR729	fine-grained biotite-feldspar-quartz meta-arkose; Dean Fm.
GR730	medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR733	medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR738	fine-grained biotite schist; Hothouse Fm.
GR741	fine-grained biotite-feldspar-quartz meta-arkose; Hothouse Fm.
GR742	fine-grained quartz-biotite schist; Hothouse Fm.
GR800	medium-grained garnet-quartz-muscovite-cross-biotite schist; Hothouse Fm.
GR802	vein quartz
GR803	very fine-grained biotite schist; Dean Fm.
GR804	altered biotite-feldspar-quartz meta-arkose; Dean Fm.
GR807	altered quartz-muscovite-cross-biotite schist; Hothouse Fm.

TABLE 2.

GEOCHEMICAL ANALYSES

Iron, magnesium, calcium and titanium are reported in percent; all other elements are given in parts per million. Letters below the element symbols indicate the method of analysis: s - six-step semiquantitative spectrographic method; a - atomic-absorption. Other symbols in the table are: N - not detected; < - amount detected is less the the lowest limit of determination, which is figure shown; > - amount detected is greater than the highest limit of determination, which is figure shown. The table is divided into five sections by sample type, with sample type labels shown in parentheses: rocks (R), soils (S), grab stream sediments (SS), minus 200-mesh fraction of bulk stream sediments (LS), and panned concentrates (PC).

Soils: Elements looked for spectrographically but not found, except as noted, and their lower limits of determination in ppm (value in parentheses): Ag (0.5); As (200); Au (10); Bi (10); Cd (20); Sb (100); Sn (10) except GR110S and GR727S which are reported as 10; W (50) except GR429S which is reported as <50; and Th (100).

Grab sample stream sediments: Elements looked for spectrographically but not found, except as noted, and their lower limits of determination, in ppm (value in parentheses): Ag (0.5); As (200); Au (10); Bi (10); Cd (20); Mo(5); Sb (100); Sn (10) except GR734SS (reported as 15); Th (100); and W (50).

Bulk stream sediments: Elements looked for spectrographically but not found, except as noted, and their lower limits of determination, in ppm (value in parentheses): Ag (0.5); As (200); Au (10); Bi (10); Cd (20); Mo (5); Sb (100); Th (100); and W (50).

Panned concentrates: Elements looked for spectrographically but not found, except as noted, and their lower limits of determination, in ppm (value in parentheses): Ag (1.0); As (500); Au (20); Bi (20); Cd (50); Mo (10); Sb (200); Sn (20) except GR644PC (reported as 300), GR661PC (150), GR827PC (70), GR836PC (200), and GR839PC (150); Th (100); and W (50).

Rocks: Elements looked for spectrographically but not found, except as noted, and their lower limits of determination, in ppm (values in parentheses): Ag (.05); As (200); Au (10); Bi (10); Cd (20); Mo (5), except GR136R, GR090R, GR213R, GR238R, GR441R, and GR739R, reported as 10, 5, <5, 30, 7, and 10 respectively; Sn (10) except GR800R, GR238R, GR259R, GR431R, and GR439R , reported as 10, 10, <10, 10, and 15 respectively; Th (100); and W (50).

Samples analyzed for gold by atomic absorption (lower limit of detection .05 ppm): 111R, 201R, 203R, 204R, 206R, 248R, 249R, 250R, 251R, 252R, 253R, 254 R, 001SS, 115SS, 601SS, 605SS, 608SS, 611SS, 663SS.

Sample	X coordinate	Y coordinate	Fe-pct.s	Mg-pct.s	Ca-pct.s	Ti-pct.s	Mn-ppms	B-ppms	Ba-ppms	Be-ppms	Co-ppms	Cr-ppms	Cu-ppms
GR101R	745,910	384,891	3.00	.50	.70	.300	700	20	1,500	1.0	5	30	<5
GR109R	739,600	384,864	7.00	1.00	<.05	.700	500	100	700	2.0	15	100	100
GR111R	739,240	384,831	7.00	1.00	<.05	.500	500	150	1,000	2.0	20	100	100
GR113R	738,660	384,846	5.00	1.00	.70	.700	700	100	700	2.0	7	70	50
GR116R	738,320	384,899	7.00	1.00	.70	1.000	500	100	700	2.0	20	100	50
GR117R	740,230	384,546	7.00	1.00	1.50	.700	700	100	500	2.0	15	50	50
GR119R	743,380	384,704	.10	.02	<.05	.070	15	N	20	N	N	10	<5
GR121R	743,460	384,679	7.00	.70	2.00	.500	1,500	15	100	1.5	10	50	15
GR125R	743,690	384,638	7.00	1.00	.10	1.000	500	50	1,000	2.0	15	70	50
GR128R	744,800	384,564	7.00	1.00	.10	1.000	500	150	1,000	2.0	30	70	70
GR130R	745,780	384,568	3.00	.50	1.00	.300	500	50	200	1.0	7	15	<5
GR133R	739,090	384,594	5.00	.70	.07	.500	700	150	1,000	2.0	15	70	10
GR135R	738,750	384,540	5.00	.70	.07	.300	500	150	500	1.5	10	20	<5
GR136R	738,650	384,542	7.00	1.00	.05	1.000	500	150	2,000	2.0	30	100	50
GR141R	742,120	384,711	7.00	1.00	.05	1.000	500	100	1,000	2.0	30	100	50
GR201R	743,720	384,783	7.00	1.00	<.05	1.000	500	150	1,000	1.5	10	50	7
GR202R	743,720	384,783	<.05	.02	<.05	.002	10	N	30	N	N	N	N
GR203R	743,760	384,795	.20	.05	<.05	.010	10	500	20	N	N	N	N
GR204R	743,740	384,813	7.00	.70	5.00	.500	2,000	15	30	2.0	15	50	30
GR206R	743,600	384,886	7.00	1.00	.70	1.000	500	200	1,500	1.0	20	50	5
GR207R	743,450	384,930	7.00	1.00	.70	1.000	500	100	1,000	2.0	30	70	70
GR209R	742,860	384,987	7.00	1.00	.05	.500	700	100	1,500	2.0	20	100	30
GR210R	742,690	384,986	<.05	<.02	<.05	.003	10	N	20	N	N	N	N
GR212R	741,930	385,023	5.00	.70	1.00	.700	500	20	500	1.0	10	50	5
GR213R	746,600	384,934	10.00	1.00	.05	1.000	500	200	2,000	2.0	20	100	100
GR215R	747,140	384,964	N	.02	<.05	.005	<10	N	20	<1.0	N	N	N
GR219R	748,430	384,976	5.00	.70	.70	.500	700	30	150	1.5	10	20	5
GR223R	746,000	384,720	7.00	1.00	.05	1.000	500	50	1,000	2.0	15	100	50
GR226R	740,090	384,724	7.00	1.50	.50	.500	700	150	1,000	2.0	7	100	30
GR227R	740,195	384,699	7.00	1.00	.05	.300	500	100	700	1.5	7	100	50
GR501R	743,180	384,743	5.00	.50	.10	.500	500	100	1,000	2.0	7	50	15
GR502R	743,160	384,765	7.00	1.00	.05	.500	700	100	1,500	2.0	20	100	50
GR507R	741,430	384,781	7.00	1.50	.15	.700	700	200	1,000	1.5	20	100	70
GR510R	740,560	384,840	7.00	1.00	.20	.500	700	100	1,000	2.0	50	70	30
GR513R	743,950	384,859	7.00	.70	<.05	.500	300	100	1,000	2.0	20	70	50
GR514R	744,180	384,885	3.00	.50	.07	.500	300	50	700	1.0	5	10	5
GR515R	744,100	384,890	7.00	1.00	.50	>1.000	1,500	300	1,500	1.0	20	100	10
GR519R	744,970	385,016	<.05	<.02	<.05	.020	50	N	50	N	N	N	N
GR527R	747,510	384,860	3.00	.30	.07	.500	500	20	300	1.0	5	20	<5
GR539R	742,885	384,746	2.00	.20	1.00	.200	700	20	70	1.0	N	10	<5
GR544R	742,920	384,721	5.00	.70	.50	.500	700	10	700	1.5	5	20	<5
GR549R	741,600	384,290	7.00	1.00	.05	.300	700	50	500	2.0	30	70	100
GR550R	741,530	384,282	7.00	1.00	.10	.700	500	100	1,000	2.0	20	70	100
GR551R	741,520	384,264	7.00	1.00	.30	.700	300	100	2,000	2.0	15	100	10
GR004R	742,270	384,977	2.00	.50	.07	.700	500	30	200	1.0	10	30	15

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR101R	50	N	10	15	<5	100	50	20	150	75	.55
GR109R	100	<20	50	100	20	100	70	30	150	140	5.10
GR111R	150	20	50	100	20	100	70	70	200	190	3.90
GR113R	100	20	20	50	15	150	70	50	200	120	.50
GR116R	50	20	30	30	20	100	100	50	300	120	.90
GR117R	50	<20	30	20	10	200	70	50	200	95	1.00
GR119R	N	N	<5	<10	N	N	<10	N	N	<5	<.05
GR121R	50	<20	20	10	10	150	50	50	100	75	1.10
GR125R	150	20	20	70	20	150	100	70	150	170	.35
GR128R	200	20	30	100	5	150	100	100	200	95	.70
GR130R	30	<20	10	<10	20	200	50	30	200	30	1.90
GR133R	70	<20	20	50	5	150	100	50	150	60	.60
GR135R	N	N	20	10	20	150	50	30	200	55	.90
GR136R	100	20	30	20	20	100	150	50	200	75	2.90
GR141R	150	20	30	100	15	100	100	100	150	75	2.90
GR201R	50	20	30	10	15	N	100	20	700	35	1.50
GR202R	N	N	<5	N	N	N	<10	N	N	<5	N
GR203R	N	N	<5	N	N	N	10	N	N	<5	<.05
GR204R	50	<20	30	10	10	150	100	50	200	25	N
GR206R	70	<20	30	20	15	200	100	50	500	35	.90
GR207R	100	20	30	50	20	150	100	50	200	5	.35
GR209R	100	<20	20	150	20	100	100	50	150	85	4.10
GR210R	N	N	5	N	N	N	<10	N	N	<5	.05
GR212R	20	<20	20	10	10	100	50	20	200	50	.85
GR213R	100	30	30	50	30	N	150	50	300	110	.25
GR215R	N	N	<5	N	N	150	<10	N	N	30	N
GR219R	50	N	20	20	10	100	100	30	500	65	.90
GR223R	100	20	20	70	30	150	100	50	150	20	.30
GR226R	150	<20	15	50	30	150	100	50	150	120	.50
GR227R	100	<20	20	50	20	100	100	50	200	35	.35
GR501R	30	20	20	50	10	100	100	30	300	40	1.50
GR502R	150	<20	20	70	20	100	100	70	100	15	.50
GR507R	100	<20	30	50	20	150	100	70	200	80	.90
GR510R	70	<20	50	30	15	<100	100	30	150	75	1.50
GR513R	150	<20	20	50	20	100	100	50	100	25	.35
GR514R	50	<20	10	30	5	100	50	20	200	40	.60
GR515R	30	<20	20	30	15	150	100	50	700	45	2.40
GR519R	N	N	<5	<10	N	N	<10	N	N	<5	N
GR527R	N	N	20	10	5	N	50	N	500	20	1.00
GR539R	N	N	15	10	5	100	30	20	300	30	.60
GR544R	30	N	15	10	7	150	50	30	300	40	.60
GR549R	50	<20	70	70	10	<100	100	50	200	95	.25
GR550R	100	N	50	100	20	100	70	70	150	85	.40
GR551R	200	<20	15	30	20	<100	100	100	150	75	1.30
GR004R	N	<20	20	15	5	N	50	10	300	50	1.35

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR006R	742,180	384,950	7.00	1.00	<.05	.700	500	150	1,000	2.0	50	100	30
GR007R	742,390	384,950	5.00	1.00	.05	.500	500	200	1,000	2.0	30	70	30
GR010R	742,510	384,906	7.00	1.00	<.05	.700	1,500	200	1,000	2.0	100	70	30
GR013R	742,740	384,874	2.00	.70	.15	.500	500	20	1,000	1.5	7	20	<5
GR015R	742,320	384,846	3.00	.70	.50	.500	500	50	1,000	1.5	10	30	7
GR026R	741,320	384,915	5.00	1.00	.70	.500	500	50	1,000	1.5	15	50	15
GR028R	743,610	385,001	7.00	1.00	.10	.500	500	200	1,000	2.0	15	50	30
GR031R	743,800	385,027	7.00	1.00	.10	.700	500	200	2,000	2.0	20	70	50
GR033R	742,910	385,022	7.00	1.00	1.00	.500	700	300	1,000	2.0	15	50	20
GR034R	743,370	385,024	7.00	1.00	.10	.500	500	200	2,000	2.0	10	100	50
GR036R	743,760	385,058	3.00	.70	1.00	.300	500	100	500	1.5	7	15	20
GR040R	746,210	384,875	7.00	1.00	.07	.700	300	200	1,000	2.0	10	70	50
GR045R	746,880	384,834	<.05	<.02	<.05	.007	30	N	30	N	N	N	N
GR047R	747,310	384,793	7.00	.70	<.05	.500	300	200	1,000	2.0	20	50	50
GR018R	740,840	384,845	7.00	1.00	1.00	.300	700	200	500	2.0	30	70	15
GR051R	747,840	384,710	<.05	<.02	<.05	.007	20	N	20	N	N	N	N
GR053R	747,850	384,700	5.00	.70	.70	.500	300	10	500	1.5	10	20	<5
GR055R	747,560	384,750	7.00	1.00	.10	.500	500	150	700	2.0	30	70	70
GR056R	747,175	384,789	10.00	1.00	2.00	.150	3,000	15	200	2.0	50	20	20
GR059R	746,700	384,745	7.00	1.00	.15	.500	1,000	50	1,000	2.0	15	50	30
GR064R	739,880	384,989	5.00	1.00	.50	.300	700	50	300	1.5	7	30	15
GR065R	745,535	384,770	<.05	<.02	<.05	.010	15	N	<20	N	N	N	N
GR066R	745,535	384,770	2.00	.50	.10	.200	300	50	500	1.0	<5	20	7
GR068R	745,240	384,704	10.00	1.00	.05	.500	1,000	100	1,000	2.0	30	100	70
GR070R	744,610	384,739	7.00	1.00	<.05	.500	300	50	1,000	2.0	20	100	50
GR073R	744,020	384,756	1.00	.50	.07	.200	300	20	500	1.0	N	N	20
GR077R	745,640	384,652	7.00	1.00	.10	.500	500	70	700	2.0	30	50	100
GR083R	738,840	384,650	7.00	1.00	.70	1.000	1,000	50	500	1.0	10	50	15
GR085R	739,240	384,714	7.00	1.00	.50	.700	500	2,000	500	1.5	7	50	20
GR090R	743,335	384,627	7.00	1.00	<.05	.500	300	200	1,000	1.5	10	50	100
GR152R	742,180	384,456	2.00	.50	.50	.300	700	50	100	1.0	<5	30	<5
GR153R	742,180	384,414	7.00	1.50	.07	1.000	1,000	100	1,500	2.0	30	70	5
GR154R	742,050	384,398	.05	.03	<.05	.010	10	N	20	N	N	<10	N
GR156R	741,590	384,386	5.00	2.00	.10	.500	700	100	1,000	2.0	15	100	15
GR157R	741,520	384,390	5.00	1.50	.70	.500	700	100	300	1.5	20	50	10
GR160R	740,840	384,434	5.00	1.50	1.00	.500	500	100	500	2.0	10	50	20
GR166R	740,220	384,778	3.00	.70	.07	.300	500	50	200	1.5	15	50	5
GR169R	739,560	384,786	7.00	1.50	<.05	.700	1,000	200	700	2.0	20	100	20
GR170R	739,700	384,791	7.00	2.00	.10	.700	700	150	700	1.5	30	100	20
GR307R	746,710	385,053	7.00	1.50	<.05	.500	700	150	700	2.0	30	100	50
GR319R	740,620	384,988	7.00	1.50	<.05	.700	700	200	700	2.0	30	100	30
GR322R	745,760	384,845	7.00	1.50	.20	.500	1,000	150	700	1.5	20	100	15
GR323R	745,640	384,780	7.00	1.50	.15	.500	1,000	200	500	2.0	20	100	30
GR324R	746,100	384,746	7.00	2.00	3.00	.500	700	70	1,000	2.0	20	150	30
GR326R	746,500	384,782	<.05	.05	.05	.030	10	N	20	N	N	<10	N

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR006R	200	<20	50	30	20	100	100	100	200	150	2.45
GR007R	100	<20	50	30	20	N	100	50	200	75	1.25
GR010R	150	<20	50	50	20	<100	100	150	200	160	1.05
GR013R	20	<20	15	<10	10	200	50	20	200	40	1.40
GR015R	20	<20	15	10	7	300	50	20	300	40	.65
GR026R	N	<20	20	30	15	200	100	30	150	50	.95
GR028R	100	<20	20	50	10	100	50	50	150	85	.35
GR031R	150	20	20	70	20	100	100	50	200	65	.45
GR033R	100	<20	30	50	15	100	100	100	200	70	.65
GR034R	150	<20	15	50	20	100	100	70	100	40	.50
GR036R	20	<20	15	20	7	100	70	30	200	40	.55
GR040R	200	20	15	50	20	<100	100	70	300	10	.75
GR045R	N	N	5	N	N	N	<10	N	N	N	N
GR047R	150	<20	20	70	15	<100	100	50	200	60	.55
GR018R	50	<20	50	70	15	200	100	50	150	130	.45
GR051R	N	N	5	N	N	N	<10	N	N	<5	N
GR053R	20	<20	15	30	5	100	50	50	500	55	.30
GR055R	150	<20	30	70	15	100	100	100	300	110	1.25
GR056R	70	N	50	10	10	N	50	50	30	85	.45
GR059R	100	20	30	70	20	100	70	50	150	70	.35
GR064R	N	N	15	10	5	<100	70	20	200	70	.60
GR065R	N	N	10	N	N	N	<10	N	N	N	<.05
GR066R	20	N	15	10	5	<100	50	15	150	40	.35
GR068R	100	20	50	70	20	100	100	50	150	20	.90
GR070R	150	20	30	70	20	100	100	70	150	25	.30
GR073R	150	N	15	<10	<5	N	30	20	150	20	.55
GR077R	100	<20	20	50	15	100	100	50	150	50	.40
GR083R	100	30	20	20	15	150	100	50	1,000	35	.75
GR085R	50	<20	20	30	15	100	100	50	200	40	.90
GR090R	150	<20	15	30	15	100	100	50	100	20	.45
GR152R	30	N	10	10	5	150	50	30	500	30	.85
GR153R	70	30	50	20	20	N	100	70	500	65	.75
GR154R	N	20	<5	N	N	N	<10	N	N	N	.10
GR156R	100	<20	15	20	20	200	100	50	100	100	.45
GR157R	50	20	15	15	10	200	50	50	300	60	.85
GR160R	50	<20	10	20	10	200	70	30	300	95	.75
GR166R	30	20	10	20	5	150	50	20	300	50	1.60
GR169R	100	20	20	20	20	100	100	50	200	95	1.70
GR170R	100	30	15	15	20	100	100	50	500	90	1.60
GR307R	150	30	20	30	15	<100	70	50	200	135	.85
GR319R	100	20	20	20	15	100	100	50	200	130	1.30
GR322R	150	30	20	30	20	<100	100	50	200	25	.65
GR323R	150	N	15	50	15	100	100	50	200	40	.80
GR324R	200	N	15	50	20	150	100	200	100	20	.65
GR326R	N	20	<5	N	N	N	<10	<10	N	N	.20

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR329R	745,700	384,717	7.00	1.00	<.05	.700	700	200	700	2.0	50	100	70
GR333R	739,620	384,658	7.00	1.50	.10	.500	1,000	200	500	1.5	30	100	10
GR338R	741,460	384,682	7.00	1.50	.50	.500	700	200	1,000	2.0	20	100	20
GR340R	741,870	384,332	7.00	1.50	.15	.500	700	200	700	1.5	20	70	50
GR341R	742,040	384,298	5.00	1.50	.70	.500	700	50	500	1.5	20	70	20
GR343R	742,330	384,552	5.00	1.00	.70	.300	700	70	500	2.0	10	50	15
GR346R	741,740	384,530	3.00	1.00	.70	.500	700	20	200	2.0	7	30	<5
GR348R	741,490	384,580	7.00	2.00	.50	1.000	700	50	700	1.5	20	150	20
GR352R	743,680	384,583	5.00	1.00	.05	.500	500	200	700	2.0	20	70	20
GR354R	743,590	384,536	7.00	1.00	<.05	.500	500	200	700	2.0	20	100	50
GR356R	744,020	384,473	7.00	1.00	1.00	.700	2,000	200	700	2.0	50	100	15
GR371R	748,300	384,793	7.00	1.50	.05	.500	500	200	1,000	2.0	20	100	30
GR093R	742,400	384,608	3.00	.70	.30	.500	500	70	200	1.5	5	30	10
GR095R	741,980	384,627	5.00	.70	.50	.500	700	100	700	1.5	10	50	5
GR701R	741,000	384,302	5.00	1.00	.70	.300	700	100	300	2.0	7	50	15
GR703R	741,120	384,223	5.00	1.00	.70	.500	700	50	700	2.0	15	70	10
GR704R	741,540	384,204	7.00	1.50	.70	.500	500	15	1,500	2.0	20	50	50
GR706R	740,070	384,307	7.00	1.50	<.05	.500	500	200	1,000	3.0	10	70	50
GR709R	740,760	384,333	7.00	1.50	.50	.500	500	300	500	2.0	<5	70	30
GR712R	741,020	384,214	7.00	1.50	.15	.500	700	200	1,000	3.0	20	100	15
GR713R	740,600	384,238	2.00	.50	.50	.300	500	100	200	1.5	N	20	<5
GR714R	740,480	384,284	5.00	2.00	.07	.500	500	100	700	2.0	15	100	30
GR715R	740,190	384,252	5.00	1.00	<.05	.500	200	100	1,000	3.0	7	100	30
GR720R	746,220	384,516	<.05	.02	<.05	.007	<10	N	<20	N	N	N	N
GR722R	746,120	384,518	5.00	1.00	.05	.500	300	200	1,000	2.0	20	100	15
GR724R	745,680	384,556	5.00	1.50	.15	.500	500	100	1,000	1.5	20	70	30
GR800R	743,340	384,711	7.00	1.50	<.05	1.000	1,000	300	1,000	2.0	30	100	50
GR802R	744,010	384,695	.15	.03	<.05	.015	10	N	<20	N	N	<10	7
GR803R	744,700	384,651	10.00	2.00	.05	1.000	1,500	100	2,000	2.0	50	100	5
GR804R	745,590	384,616	3.00	.50	.50	.500	500	15	300	1.0	5	20	<5
GR807R	738,195	384,574	7.00	1.50	<.05	.700	1,500	500	500	3.0	20	50	30
GR230R	740,310	384,596	5.00	1.00	.50	.500	500	50	500	1.5	10	30	<5
GR231R	740,400	384,574	<.05	<.02	<.05	.007	<10	N	<20	N	N	N	N
GR232R	743,260	384,695	3.00	.70	.30	.500	500	10	500	1.0	<5	20	N
GR233R	742,830	384,683	5.00	1.50	<.05	.500	500	150	1,000	5.0	7	50	15
GR235R	742,940	384,581	5.00	2.00	<.05	.500	500	100	1,000	2.0	15	70	50
GR237R	742,780	384,529	5.00	1.50	<.05	.500	500	50	1,000	3.0	15	50	10
GR238R	743,120	384,488	7.00	1.50	<.05	.700	200	100	3,000	3.0	7	100	70
GR240R	743,840	384,428	3.00	1.00	.20	.300	500	10	500	1.5	10	20	<5
GR241R	744,920	384,552	7.00	1.50	.05	1.000	1,000	200	1,000	3.0	15	70	30
GR242R	744,900	384,544	5.00	1.50	.05	1.000	700	100	700	2.0	15	70	20
GR246R	745,470	384,440	7.00	1.50	<.05	.700	300	150	1,000	3.0	10	70	50
GR248R	737,290	384,725	1.50	.70	.50	.150	300	<10	500	1.0	N	<10	5
GR249R	737,290	384,725	10.00	2.00	.10	1.000	500	100	2,000	2.0	50	100	30
GR250R	737,290	384,725	10.00	2.00	.15	1.000	500	150	2,000	1.5	30	70	50

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR329R	200	<20	15	50	20	<100	100	70	300	115	.85
GR333R	100	20	30	30	15	100	100	30	150	40	.95
GR338R	150	20	20	50	20	200	100	50	300	50	.75
GR340R	100	<20	20	30	20	150	100	70	200	65	1.60
GR341R	50	<20	20	20	15	200	70	30	200	80	.85
GR343R	20	N	15	10	7	200	50	30	200	55	1.30
GR346R	N	<20	15	<10	5	200	50	20	200	45	.50
GR348R	70	20	20	15	20	200	100	70	700	85	2.50
GR352R	150	20	20	50	20	100	100	100	200	70	.85
GR354R	200	20	20	50	20	<100	100	100	200	55	.25
GR356R	100	20	50	50	20	100	100	70	300	85	.50
GR371R	100	<20	30	30	15	100	100	100	200	145	.60
GR093R	N	N	15	15	5	200	50	30	300	45	.30
GR095R	N	N	15	15	7	200	100	30	300	50	.65
GR701R	70	N	10	30	10	300	100	50	200	90	.45
GR703R	70	<20	15	20	15	200	100	70	300	55	1.00
GR704R	70	N	20	70	15	300	100	50	300	95	2.40
GR706R	100	20	20	30	20	100	100	70	300	70	.65
GR709R	50	N	10	20	10	100	50	100	200	90	.65
GR712R	150	20	15	20	20	150	100	30	200	75	.55
GR713R	N	N	10	10	<5	150	50	50	1,000	35	.65
GR714R	50	N	20	20	15	100	100	70	100	140	.30
GR715R	100	20	15	30	15	100	100	50	300	85	.45
GR720R	N	N	<5	N	N	N	<10	N	N	N	.05
GR722R	70	<20	20	30	15	150	150	50	300	70	.60
GR724R	50	N	20	30	10	150	100	50	300	60	1.00
GR800R	200	30	50	50	30	N	150	100	300	30	1.50
GR802R	N	N	<5	<10	N	N	<10	N	N	5	.30
GR803R	30	20	50	10	20	N	150	70	500	125	.90
GR804R	N	N	10	<10	7	200	50	30	200	35	1.50
GR807R	20	<20	20	20	15	<100	100	50	300	90	1.50
GR230R	20	N	15	10	5	150	50	50	200	50	.80
GR231R	N	N	<5	<10	N	N	10	N	N	10	.05
GR232R	30	<20	10	<10	7	150	50	30	1,000	40	.90
GR233R	50	<20	15	30	10	N	70	30	300	65	1.00
GR235R	100	N	20	50	20	100	70	50	70	60	.90
GR237R	70	20	15	30	15	<100	100	50	150	75	.55
GR238R	150	20	15	200	20	N	150	70	150	45	1.30
GR240R	30	N	15	<10	5	150	50	20	300	50	.75
GR241R	70	50	10	20	15	100	70	50	700	110	.60
GR242R	150	20	15	50	15	100	100	50	100	40	.45
GR246R	150	30	20	30	15	<100	70	70	300	125	.30
GR248R	N	N	10	<10	N	200	30	20	300	30	.90
GR249R	150	30	50	30	20	N	70	70	300	115	1.90
GR250R	100	30	50	20	20	100	100	70	500	90	1.40

Sample	X coor-dinate	Y coor-dinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR251R	737,290	384,725	10.00	2.00	<.05	1.000	500	150	1,000	1.5	20	70	70
GR252R	737,290	384,725	15.00	2.00	<.05	1.000	3,000	200	2,000	3.0	30	100	5
GR253R	737,290	384,725	.30	.05	<.05	.050	30	N	20	<1.0	N	N	N
GR254R	737,290	384,725	5.00	2.00	.70	.700	1,000	150	1,000	2.0	10	50	30
GR257R	743,080	384,846	5.00	1.00	.70	.500	1,000	50	150	2.0	5	30	15
GR259R	744,570	384,786	7.00	1.50	<.05	.700	200	200	1,000	2.0	20	50	20
GR260R	744,785	384,764	5.00	1.00	1.00	.500	1,000	50	300	2.0	7	30	<5
GR261R	745,055	384,778	<.05	<.02	<.05	.005	<10	<10	<20	N	N	N	N
GR400R	744,360	384,804	3.00	.50	1.00	.500	1,000	50	20	1.0	<5	20	20
GR401R	744,440	384,800	5.00	1.50	.10	1.000	700	200	1,000	3.0	20	50	30
GR403R	744,500	384,810	2.00	.70	.05	.300	200	50	700	1.5	<5	20	5
GR405R	745,340	384,849	7.00	1.50	.07	1.000	500	100	1,000	3.0	20	100	20
GR409R	746,700	384,902	3.00	.70	1.00	.500	700	30	200	1.5	5	50	<5
GR410R	746,700	384,902	2.00	.50	.70	.300	500	20	20	1.0	<5	30	5
GR411R	748,080	384,872	5.00	1.50	.05	1.000	300	150	1,000	3.0	15	50	15
GR413R	749,000	384,938	1.00	.50	.70	.100	100	10	300	1.5	N	<10	N
GR416R	739,580	384,871	5.00	1.00	<.05	.700	700	150	500	5.0	15	70	30
GR417R	739,580	384,871	7.00	2.00	10.00	.200	1,000	100	200	3.0	20	70	20
GR418R	739,680	384,885	5.00	1.50	.20	.700	1,000	150	500	3.0	20	100	30
GR420R	739,140	384,970	2.00	1.00	.50	.300	300	30	200	1.5	5	20	15
GR421R	738,700	385,079	5.00	1.00	<.05	.700	300	100	1,000	3.0	10	100	30
GR422R	743,710	384,718	5.00	1.00	.15	.700	500	100	1,000	2.0	15	50	5
GR423R	744,120	384,671	3.00	.50	1.00	.500	1,000	20	50	1.0	N	10	<5
GR425R	746,460	384,596	.30	.10	.70	.050	50	20	1,000	1.5	N	<10	N
GR426R	747,000	384,590	1.00	.50	.70	.150	150	20	500	1.5	N	<10	N
GR428R	740,360	384,758	5.00	1.50	.50	.500	1,000	50	1,000	2.0	10	100	7
GR430R	739,640	384,707	3.00	1.50	.70	.500	300	50	200	1.5	7	50	5
GR431R	739,740	384,693	7.00	1.50	.10	1.000	700	200	2,000	1.5	20	100	50
GR432R	739,435	384,680	5.00	1.00	<.05	.300	500	50	1,000	3.0	20	70	20
GR434R	739,060	384,631	5.00	1.50	.10	.700	700	200	1,000	2.0	20	100	30
GR437R	738,550	384,543	2.00	.50	.10	.300	300	70	200	1.0	<5	15	<5
GR438R	740,720	384,732	5.00	1.50	.15	.500	500	200	700	2.0	20	70	15
GR439R	740,930	384,668	5.00	2.00	.05	.500	500	100	2,000	1.5	10	100	30
GR441R	740,685	384,665	1.50	.30	<.05	.300	100	30	100	<1.0	N	<10	<5
GR442R	741,770	384,297	7.00	2.00	<.05	.500	1,000	70	2,000	3.0	20	100	30
GR443R	741,400	384,351	1.50	.50	.07	.200	200	100	100	1.0	<5	<10	5
GR444R	742,020	384,388	2.00	.70	.15	.200	500	100	100	2.0	<5	15	20
GR445R	742,040	384,378	2.00	.70	.07	.200	500	50	100	1.0	<5	20	5
GR446R	742,070	384,372	2.00	1.00	.05	.500	700	300	1,500	3.0	5	100	10
GR447R	742,090	384,365	.05	.02	<.05	.010	<10	10	20	N	N	<10	N
GR448R	742,090	384,365	5.00	1.50	<.05	.700	500	150	700	1.5	20	70	20
GR451R	742,850	384,394	5.00	1.50	.15	.700	300	200	500	3.0	20	70	10
GR557R	744,150	384,605	5.00	.50	.50	.500	500	20	200	1.5	7	20	15
GR562R	744,640	384,443	3.00	.50	.50	.500	700	30	150	1.0	5	30	<5
GR563R	744,870	384,440	7.00	2.00	.70	1.000	700	15	20	2.0	20	50	20

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR251R	50	30	50	30	15	<100	100	50	200	190	2.00
GR252R	100	30	70	15	20	N	150	70	500	135	3.00
GR253R	N	N	<5	N	N	N	<10	N	N	<5	.20
GR254R	50	<20	15	10	10	150	70	30	500	70	2.60
GR257R	30	N	15	30	7	100	50	20	1,000	70	.90
GR259R	150	20	30	50	15	100	100	50	200	90	.35
GR260R	70	N	20	<10	7	200	50	30	300	50	.55
GR261R	N	N	<5	<10	N	N	<10	N	N	<5	.10
GR400R	N	N	15	<10	5	200	50	30	300	35	.80
GR401R	150	30	20	50	15	100	70	70	200	90	.30
GR403R	30	N	10	10	<5	150	30	20	300	30	.55
GR405R	150	20	20	50	20	100	100	50	150	15	.80
GR409R	N	<20	10	N	7	150	50	30	300	25	.70
GR410R	N	N	10	N	5	N	30	20	300	35	.50
GR411R	100	30	15	20	20	<100	100	50	300	20	.50
GR413R	N	N	<5	10	N	500	10	N	100	30	.30
GR416R	300	20	20	30	20	200	70	100	150	20	4.00
GR417R	200	<20	50	20	10	200	50	300	150	190	5.60
GR418R	70	20	20	30	20	<100	70	30	300	105	.95
GR420R	20	N	7	10	7	150	50	20	200	75	.75
GR421R	150	20	7	50	15	150	70	30	300	60	1.50
GR422R	20	<20	15	15	10	150	50	20	200	55	2.30
GR423R	70	<20	10	<10	5	150	50	50	300	30	.90
GR425R	N	N	<5	20	N	700	<10	N	70	10	.50
GR426R	N	N	<5	15	N	700	10	N	100	35	1.00
GR428R	50	20	15	20	15	100	100	30	200	90	.60
GR430R	50	<20	10	10	7	200	50	30	300	55	1.90
GR431R	100	<20	20	20	20	<100	150	100	300	85	.80
GR432R	100	<20	15	20	15	<100	70	50	100	70	.65
GR434R	100	20	30	50	20	100	100	50	300	95	1.90
GR437R	50	N	5	<10	<5	100	30	20	500	30	1.00
GR438R	100	20	30	15	15	<100	100	50	300	100	1.00
GR439R	100	20	15	30	20	<100	150	50	300	110	2.20
GR441R	N	N	5	<10	<5	N	20	N	300	20	.90
GR442R	100	20	20	20	20	100	50	50	100	95	.70
GR443R	N	N	7	N	<5	<100	30	<10	200	20	.60
GR444R	30	N	15	15	N	100	30	30	200	50	.90
GR445R	N	N	7	<10	N	<100	50	10	200	15	1.80
GR446R	70	20	5	15	15	N	100	50	200	80	.90
GR447R	N	N	<5	N	N	N	<10	N	N	<5	.30
GR448R	50	20	20	15	10	N	70	30	300	70	.90
GR451R	100	20	30	20	15	<100	70	70	200	80	.90
GR557R	30	<20	7	15	5	200	50	30	500	45	.40
GR562R	50	N	10	20	5	150	70	50	300	35	.80
GR563R	N	N	20	20	15	200	100	50	500	85	.95

Rich Mtn. Geochemistry--continued

Sample	X coordinate	Y coordinate	Fe-pcts.	Mg-pcts.	Ca-pcts.	Ti-pcts.	Mn-ppms	B-ppms	Ba-ppms	Be-ppms	Co-ppms	Cr-ppms	Cu-ppms
GR554R	743,550	384,640	<.05	.02	<.05	.005	<10	N	20	N	N	N	N
GR564R	746,000	384,923	5.00	.70	1.00	.700	1,000	20	70	1.0	5	50	<5
GR558R	744,480	384,515	1.00	.10	<.05	.100	300	50	1,000	1.0	N	<10	<5
GR566R	745,340	384,961	1.50	.50	.50	.070	200	10	300	2.0	N	N	N
GR728R	742,940	384,942	10.00	2.00	.70	1.000	1,500	200	700	2.0	30	100	10
GR729R	742,820	384,941	5.00	1.00	.50	.500	1,000	100	300	2.0	20	70	20
GR730R	744,870	384,866	7.00	1.50	.50	1.000	700	200	500	2.0	15	100	30
GR733R	744,170	384,964	7.00	1.50	.70	1.000	1,000	150	500	3.0	20	100	30
GR738R	740,440	384,869	7.00	1.50	.05	1.000	700	150	1,500	3.0	10	100	30
GR739R	740,330	384,866	5.00	2.00	.20	.500	1,000	50	1,500	2.0	20	100	100
GR741R	742,660	384,435	3.00	.70	.30	.300	500	50	200	1.0	5	20	5
GR742R	743,040	384,445	7.00	1.50	<.05	.700	700	100	1,500	1.5	30	100	10
GR453R	743,000	384,292	3.00	.70	.50	.300	1,000	10	1,000	2.0	<5	20	<5
GR458R	745,380	384,872	5.00	.70	2.00	.300	1,500	100	100	1.0	<5	20	15
GR459R	745,240	384,916	5.00	.70	5.00	.500	2,000	10	70	<1.0	10	30	<5
GR460R	745,180	384,927	5.00	1.50	.15	.500	500	300	1,000	1.0	15	50	<5
GR462R	744,980	384,962	7.00	1.00	.05	.700	700	200	500	2.0	20	100	50
GR465R	740,500	384,814	5.00	1.00	.15	.500	500	20	700	1.5	15	50	10
GR466R	740,300	384,829	5.00	1.00	.10	.500	500	50	700	1.5	10	50	<5
GR468R	739,810	384,847	7.00	2.00	<.05	.500	200	50	1,000	2.0	15	100	50
GR463R	744,980	385,016	7.00	1.50	.05	.700	700	200	700	2.0	20	100	30

Rich Mtn. Geochemistry--continued

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR554R	N	N	<5	N	N	N	<10	N	N	20	.05
GR564R	50	<20	10	30	7	150	100	50	1,000	40	1.40
GR558R	N	N	7	20	N	<100	30	N	300	5	.95
GR566R	N	N	<5	10	N	200	15	N	100	30	.40
GR728R	20	20	30	30	20	150	150	50	500	40	.95
GR729R	20	<20	20	20	10	150	100	30	200	50	.80
GR730R	70	20	20	30	20	150	100	50	500	70	N
GR733R	100	20	20	30	20	150	100	70	300	10	.70
GR738R	30	<20	15	50	20	150	100	50	150	50	2.90
GR739R	70	<20	15	70	15	150	100	50	100	60	2.90
GR741R	N	<20	10	15	5	<100	50	30	500	50	.75
GR742R	70	20	30	20	20	N	100	100	300	60	.95
GR453R	30	N	7	10	5	200	70	20	200	35	.60
GR458R	30	N	10	<10	7	<100	50	20	200	40	.60
GR459R	20	<20	15	15	7	200	100	30	300	25	.40
GR460R	50	<20	15	15	10	150	150	30	500	30	.70
GR462R	150	<20	15	70	20	100	100	50	200	25	.75
GR465R	50	<20	15	20	10	200	100	20	500	40	3.50
GR466R	20	<20	15	20	7	200	50	15	1,000	50	1.00
GR468R	150	N	20	70	20	100	100	50	150	60	.50
GR463R	200	20	20	50	20	100	100	50	200	25	.95

Rich Mtn. Geochemistry--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR533SS	747,900	384,694	3.0	.5	.05	1.0	700	200	300	2.0	7	50	15
GR536SS	747,665	384,680	3.0	.3	.07	1.0	500	200	300	1.5	5	30	5
GR001SS	738,320	384,743	2.0	.5	.05	1.0	500	200	300	1.5	7	50	7
GR003SS	742,390	384,986	2.0	.2	<.05	.5	500	150	300	2.0	5	50	10
GR012SS	742,740	384,874	2.0	.3	.07	1.0	500	200	300	2.0	5	30	7
GR016SS	742,280	384,851	2.0	.3	.07	.5	500	200	300	2.0	7	30	7
GR020SS	741,520	384,839	2.0	.5	.05	.3	500	150	300	1.5	5	50	15
GR021SS	741,360	384,839	3.0	.5	.05	1.0	700	200	200	1.5	<5	30	10
GR042SS	746,840	384,819	5.0	.3	.05	>1.0	500	200	300	2.0	5	50	15
GR044SS	746,860	384,825	3.0	.3	.05	1.0	500	200	300	1.5	5	50	15
GR052SS	747,850	384,700	3.0	.5	.05	1.0	500	200	300	1.5	7	50	5
GR054SS	747,925	384,684	2.0	.3	.05	.7	300	200	300	2.0	5	50	10
GR074SS	744,480	384,718	2.0	.2	.07	>1.0	1,000	200	200	1.5	<5	50	5
GR076SS	745,710	384,654	2.0	.2	.05	1.0	500	200	500	1.5	5	50	5
GR078SS	745,700	384,660	3.0	.5	.07	1.0	700	100	500	2.0	15	70	15
GR080SS	746,300	384,642	2.0	.2	.05	1.0	500	200	300	1.5	5	20	5
GR734SS	744,170	384,964	3.0	.3	.07	1.0	700	200	500	2.0	7	30	20
GR811SS	741,675	384,666	2.0	.5	.05	1.0	500	200	300	1.5	7	20	10
GR814SS	741,700	384,662	2.0	.3	.07	.7	500	200	300	1.5	5	20	10
GR817SS	740,520	384,490	3.0	.5	.20	.5	500	200	500	2.0	7	30	15
GR820SS	740,540	384,493	3.0	.5	.15	.5	500	200	500	2.0	7	50	10
GR822SS	743,120	385,186	1.5	.2	.07	.5	300	200	300	2.0	5	20	5
GR829SS	745,240	385,048	3.0	.3	.05	1.0	500	200	500	2.0	7	50	20
GR832SS	745,290	385,048	3.0	.5	.10	1.0	500	200	500	3.0	7	50	20
GR835SS	745,580	384,439	2.0	.5	.05	.7	500	200	500	2.0	5	50	7
GR838SS	745,840	384,442	2.0	.3	.07	.7	500	200	500	1.5	5	30	10
GR841SS	743,760	384,474	3.0	.5	.05	1.0	700	200	500	2.0	5	50	7
GR844SS	743,700	384,472	2.0	.3	.05	.5	500	200	500	2.0	5	50	10
GR847SS	743,660	384,450	3.0	.2	<.05	>1.0	500	200	500	2.0	5	20	7
GR850SS	744,230	384,399	1.5	.2	.05	.7	500	200	300	1.5	5	20	5
GR853SS	744,160	384,383	1.5	.3	<.05	.5	300	200	300	1.5	5	15	7
GR868SS	746,170	384,640	1.5	.2	<.05	.7	200	200	200	1.5	<5	20	5
GR871SS	746,490	384,638	2.0	.2	<.05	1.0	300	200	200	1.5	5	20	5

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR533SS	50	20	10	20	10	N	70	30	1,000	50	.95
GR536SS	30	20	7	15	7	N	50	70	>1,000	30	.85
GR001SS	30	20	7	10	7	N	70	30	>1,000	35	1.10
GR003SS	30	<20	5	20	7	N	70	30	1,000	30	.95
GR012SS	50	20	5	15	10	N	70	30	>1,000	35	1.40
GR016SS	20	<20	5	10	7	N	50	20	1,000	60	2.70
GR020SS	30	<20	5	20	7	N	50	30	1,000	35	1.10
GR021SS	20	<20	5	10	7	N	50	30	>1,000	45	2.10
GR042SS	100	30	5	15	10	N	50	30	1,000	30	.95
GR044SS	100	30	7	15	10	N	70	30	1,000	35	.95
GR052SS	50	20	5	10	7	N	70	30	1,000	30	.95
GR054SS	50	20	10	20	10	N	50	30	1,000	35	.90
GR074SS	20	30	7	<10	10	N	50	30	>1,000	30	.95
GR076SS	70	20	7	15	10	N	50	30	1,000	25	.75
GR078SS	50	<20	20	50	10	N	70	50	500	65	1.10
GR080SS	30	<20	10	10	7	N	50	30	1,000	25	.95
GR734SS	70	20	10	20	10	N	50	50	>1,000	40	1.00
GR811SS	30	<20	10	20	5	N	50	30	>1,000	45	.90
GR814SS	50	N	10	20	7	N	50	50	1,000	35	.95
GR817SS	50	<20	10	20	10	N	50	50	500	50	.95
GR820SS	50	<20	10	20	10	N	50	50	1,000	45	.95
GR822SS	30	<20	7	15	5	N	30	50	1,000	30	.65
GR829SS	100	20	7	20	7	N	50	50	1,000	40	.75
GR832SS	100	20	7	30	10	N	70	30	500	45	.95
GR835SS	30	<20	5	10	7	N	50	20	1,000	50	1.10
GR838SS	30	<20	5	15	5	N	50	30	>1,000	35	1.10
GR841SS	30	20	7	15	7	N	50	20	>1,000	45	.95
GR844SS	50	<20	5	15	5	N	50	30	>1,000	35	.55
GR847SS	50	20	5	10	5	N	50	20	>1,000	25	.45
GR850SS	20	<20	7	10	5	N	50	20	>1,000	25	.60
GR853SS	50	<20	5	<10	5	N	50	20	500	30	.70
GR868SS	20	<20	5	10	5	N	50	15	700	20	.70
GR871SS	50	20	7	10	5	N	50	20	>1,000	25	.55

Sample	X coordinate	Y coordinate	Fe-pct.s	Mg-pct.s	Ca-pct.s	Ti-pct.s	Mn-ppms	B-ppms	Ba-ppms	Be-ppms	Co-ppms	Cr-ppms	Cu-ppms
GR115SS	738,300	384,898	3.0	.5	.05	1.0	1,000	300	200	2.0	5	50	15
GR144SS	741,675	384,666	3.0	.5	.05	.5	700	200	200	2.0	7	50	10
GR145SS	741,700	384,662	5.0	.7	.15	.7	1,000	200	300	2.0	10	50	15
GR146SS	744,230	384,335	3.0	.5	.05	1.0	500	200	300	2.0	7	50	10
GR147SS	744,210	384,380	2.0	.5	.05	.7	300	200	300	2.0	5	50	10
GR220SS	748,670	384,994	5.0	.7	.07	1.0	500	200	500	2.0	10	70	20
GR301SS	742,880	385,113	3.0	.3	.07	1.0	1,000	300	300	2.0	7	30	15
GR308SS	746,840	385,051	5.0	.3	.07	1.0	1,000	300	500	2.0	10	50	15
GR362SS	739,600	384,213	2.0	.5	.05	.5	500	200	500	2.0	7	50	15
GR364SS	740,210	384,060	2.0	.3	.05	1.0	300	200	500	2.0	5	50	15
GR366SS	741,740	384,146	3.0	.5	.07	.5	500	300	500	1.5	5	50	15
GR408SS	745,660	385,022	3.0	.3	.07	.7	500	300	300	2.0	5	30	10
GR601SS	738,995	385,024	3.0	.3	<.05	>1.0	1,000	300	300	1.5	5	50	20
GR605SS	738,890	385,014	3.0	.5	<.05	1.0	500	200	500	2.0	7	50	15
GR608SS	739,140	384,962	2.0	.2	<.05	1.0	500	300	500	1.5	5	30	15
GR611SS	739,200	384,964	2.0	.2	<.05	1.0	500	300	500	2.0	7	30	10
GR615SS	741,460	384,934	3.0	.5	.07	.5	700	200	500	2.0	7	50	10
GR621SS	741,530	384,935	3.0	.3	.05	.5	500	200	500	1.5	5	30	10
GR627SS	741,260	384,961	2.0	.3	.05	.5	500	150	500	1.0	5	30	5
GR630SS	740,800	384,988	3.0	.3	.05	1.0	1,000	200	300	1.5	7	50	10
GR633SS	742,000	385,156	2.0	.3	.05	.5	500	300	200	1.0	<5	20	7
GR636SS	741,760	385,075	2.0	.3	.07	.5	500	300	200	1.5	5	20	10
GR646SS	745,490	385,080	3.0	.5	.07	.7	500	300	200	1.5	7	20	10
GR648SS	745,780	385,082	3.0	.5	.05	.7	500	200	300	1.5	10	30	15
GR651SS	745,800	385,096	2.0	.5	.05	.7	500	200	300	2.0	10	30	10
GR655SS	748,450	385,033	3.0	.5	.07	.7	500	200	500	2.0	10	30	15
GR660SS	738,880	384,806	3.0	.5	.07	.7	500	200	300	1.5	7	30	10
GR663SS	738,200	384,746	3.0	.5	.05	.7	500	200	500	2.0	10	30	15
GR666SS	737,640	384,463	1.5	.2	.05	.5	500	200	300	2.0	5	20	5
GR669SS	741,320	384,630	2.0	.5	.05	.7	700	200	300	2.0	7	50	10
GR672SS	741,350	384,627	2.0	.7	.15	.5	700	200	500	2.0	5	50	10
GR675SS	741,080	384,608	2.0	.7	.07	.5	500	200	500	2.0	7	50	10
GR678SS	740,210	384,539	2.0	.5	.07	.5	500	200	500	2.0	7	50	15
GR681SS	740,260	384,548	3.0	.7	.10	.5	500	200	500	2.0	7	50	15
GR684SS	740,180	384,550	2.0	.5	.05	.5	500	200	300	2.0	5	50	10
GR687SS	742,590	384,180	2.0	.5	.05	.5	500	200	500	2.0	7	50	10
GR690SS	744,540	384,340	1.5	.2	.05	.5	300	200	200	1.5	<5	30	<5
GR693SS	744,480	384,344	3.0	.3	.05	.7	700	200	300	2.0	<5	50	5
GR624SS	741,440	384,963	2.0	.5	<.05	.5	700	100	300	1.5	5	50	5
GR517SS	744,340	384,939	3.0	.5	.05	1.0	300	200	200	2.0	5	50	15
GR518SS	744,470	384,960	2.0	.3	.07	1.0	500	200	200	2.0	5	50	5
GR522SS	745,360	385,088	2.0	.2	.05	1.0	500	200	200	1.5	<5	20	5
GR523SS	744,790	385,112	3.0	.3	.05	1.0	500	200	200	1.5	7	50	10
GR528SS	747,460	384,805	2.0	.3	.05	1.0	500	200	200	1.5	10	50	10
GR530SS	747,900	384,776	3.0	.7	.05	1.0	500	200	300	2.0	10	50	15

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR115SS	100	20	10	20	7	<100	70	30	>1,000	60	.90
GR144SS	50	<20	10	10	7	<100	70	30	>1,000	50	1.10
GR145SS	100	<20	15	20	10	<100	70	50	>1,000	55	1.40
GR146SS	70	<20	15	10	7	<100	70	50	700	40	.90
GR147SS	100	<20	15	15	7	<100	70	50	700	30	.53
GR220SS	100	20	20	30	10	<100	100	50	700	65	.90
GR301SS	100	20	15	15	10	<100	50	50	700	35	.80
GR308SS	100	20	15	20	10	N	70	30	>1,000	45	.90
GR362SS	50	<20	15	20	10	N	70	50	>1,000	55	1.10
GR364SS	50	<20	10	15	10	N	70	50	700	40	1.30
GR366SS	100	<20	10	20	10	<100	70	30	700	50	1.10
GR408SS	30	<20	10	15	7	<100	70	30	1,000	30	.90
GR601SS	30	30	10	10	7	N	70	50	1,000	35	1.00
GR605SS	50	30	10	20	10	<100	70	50	>1,000	50	1.70
GR608SS	30	<20	10	15	7	N	50	50	1,000	50	.85
GR611SS	30	20	10	15	7	<100	50	30	1,000	55	.80
GR615SS	30	<20	10	15	7	<100	50	50	1,000	60	.90
GR621SS	50	<20	10	10	7	<100	50	30	500	65	.90
GR627SS	20	<20	10	<10	5	<100	50	30	500	45	.90
GR630SS	20	20	15	10	7	N	50	30	>1,000	45	1.10
GR633SS	N	<20	10	10	7	N	50	30	>1,000	40	1.20
GR636SS	N	<20	10	10	7	<100	50	30	>1,000	40	1.10
GR646SS	30	20	10	15	10	<100	70	50	>1,000	45	1.00
GR648SS	50	20	10	15	10	N	70	50	1,000	60	.90
GR651SS	50	20	10	15	10	N	50	30	1,000	40	.65
GR655SS	70	20	10	20	10	N	50	50	1,000	50	.85
GR660SS	N	20	10	15	7	N	50	30	1,000	30	.90
GR663SS	50	20	7	15	10	N	50	50	1,000	50	1.00
GR666SS	30	<20	5	<10	5	N	50	20	1,000	35	.80
GR669SS	50	20	7	15	7	<100	50	50	1,000	50	1.10
GR672SS	50	20	7	20	7	<100	50	30	700	60	1.20
GR675SS	50	<20	10	15	10	<100	50	70	500	55	1.20
GR678SS	70	<20	10	20	7	<100	50	30	1,000	70	1.60
GR681SS	70	<20	10	20	10	<100	50	30	700	110	.90
GR684SS	50	<20	7	15	5	N	50	30	500	55	.90
GR687SS	70	<20	10	20	7	N	50	30	500	55	.90
GR690SS	30	<20	5	10	7	N	30	15	>1,000	35	.90
GR693SS	50	<20	7	20	7	N	50	20	1,000	40	.90
GR624SS	30	<20	10	15	5	N	50	30	700	50	.90
GR517SS	100	20	7	20	7	N	50	50	700	35	1.60
GR518SS	N	20	7	<10	7	N	50	50	>1,000	35	1.40
GR522SS	N	20	7	10	10	N	50	30	>1,000	30	.95
GR523SS	30	20	10	15	10	N	50	50	>1,000	40	1.80
GR528SS	50	20	10	20	7	N	50	30	>1,000	45	1.20
GR530SS	50	20	10	20	10	N	50	50	>1,000	70	1.60

Rich Mtn Geochemistry

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Pb-ppm s
GR535PC	747,900	384,694	2.00	.20	.1	.50	500	500	500	100	<10	70	100
GR538PC	747,665	384,680	1.00	.10	.2	.50	300	700	300	50	<10	70	100
GR600PC	738,995	385,024	.50	.20	.1	1.50	200	1,000	300	N	<10	50	100
GR603PC	738,890	385,014	.50	.20	.1	1.50	200	1,000	300	N	100	N	150
GR606PC	739,140	384,962	.50	.20	.1	1.50	150	1,000	300	N	<10	N	150
GR609PC	739,200	384,964	.50	.30	.2	.20	300	500	500	N	<10	70	200
GR612PC	738,300	384,740	.50	.10	.1	1.50	150	500	300	N	10	50	150
GR619PC	741,530	384,935	.50	.20	.1	.20	200	700	300	N	10	N	100
GR622PC	741,440	384,963	.20	.20	.1	.20	150	1,000	300	N	<10	N	150
GR625PC	741,260	384,961	.20	.10	.1	.50	150	500	300	N	20	N	150
GR628PC	740,800	384,988	.50	.20	.1	1.00	300	1,500	500	N	<10	N	150
GR631PC	742,000	385,156	.20	.20	.1	.10	150	1,000	500	50	<10	N	150
GR634PC	741,760	385,075	.20	.20	.1	.50	150	1,000	300	20	<10	N	150
GR637PC	743,135	385,186	.15	.10	.1	.10	150	500	300	N	<10	N	150
GR640PC	742,690	384,876	1.00	.10	.1	.20	200	200	300	N	<10	150	150
GR642PC	744,800	385,124	.50	.20	.1	.10	200	500	500	N	<10	50	100
GR644PC	745,490	385,080	1.00	.10	.1	.20	300	200	500	N	<10	150	150
GR647PC	745,780	385,082	1.00	.10	.1	.50	150	500	300	N	<10	50	100
GR650PC	745,800	385,096	1.00	.10	.1	.50	300	100	300	N	<10	200	50
GR653PC	748,450	385,033	1.00	.10	.1	.50	300	200	300	N	<10	150	150
GR656PC	748,820	385,019	1.00	.20	.2	.50	200	500	300	N	<10	50	100
GR658PC	738,880	384,806	.20	.10	.1	.50	150	500	300	N	<10	N	50
GR661PC	738,200	384,746	.50	.20	.1	1.00	200	1,000	300	20	<10	N	150
GR664PC	737,640	384,463	.50	.20	.1	.20	200	2,000	300	N	<10	N	150
GR673PC	741,080	384,608	.20	.50	.2	.20	200	700	500	N	<10	N	200
GR682PC	740,180	384,550	.15	.05	.1	.20	150	70	300	N	<10	N	150
GR685PC	742,590	384,180	.15	.05	.1	.05	150	500	300	N	<10	N	100
GR688PC	744,540	384,340	.15	.05	.2	1.00	150	300	300	N	<10	N	150
GR691PC	744,480	384,344	.20	.05	.1	.10	150	150	300	N	<10	N	150
GR812PC	741,700	384,662	.20	.07	.1	.20	200	200	300	N	<10	50	150
GR818PC	740,540	384,493	.20	.10	.2	.50	200	500	300	N	<10	100	100
GR825PC	745,360	385,088	.20	.05	.1	.50	150	200	500	N	<10	N	150
GR827PC	745,240	385,048	1.00	.10	.1	.70	200	200	500	70	15	200	20
GR830PC	745,290	385,048	1.00	.10	.1	.70	200	200	300	100	<10	150	30
GR836PC	745,840	384,442	.10	.05	.1	.30	100	150	500	N	10	50	150
GR839PC	743,760	384,474	1.00	.20	.1	.50	300	500	500	50	10	150	100
GR845PC	743,660	384,450	.50	.05	.1	.30	300	300	300	N	<10	50	70
GR851PC	744,160	384,383	2.00	.10	.1	.30	200	200	500	70	10	50	20
GR856PC	746,840	384,819	2.00	.10	.1	.50	300	200	500	70	<10	150	100
GR858PC	745,700	384,660	.50	<.05	<.1	.30	150	500	300	N	<10	N	20
GR869PC	746,490	384,638	.20	<.05	<.1	.20	150	200	300	N	<10	50	70

Sample	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR535PC	10	N	200	100	300	>2,000	420	6.5
GR538PC	10	N	200	100	500	>2,000	360	10.0
GR600PC	20	N	200	70	1,000	>2,000	130	8.6
GR603PC	70	N	200	70	1,000	>2,000	25	20.0
GR606PC	70	N	200	70	1,500	>2,000	15	22.0
GR609PC	100	N	500	100	1,000	>2,000	35	16.0
GR612PC	70	N	200	70	1,000	>2,000	20	15.0
GR619PC	30	N	200	70	1,000	>2,000	10	18.0
GR622PC	70	N	200	70	1,500	>2,000	10	24.0
GR625PC	70	N	200	70	1,500	>2,000	10	40.0
GR628PC	70	N	200	70	1,500	>2,000	15	53.0
GR631PC	70	N	200	70	1,500	>2,000	10	18.0
GR634PC	70	N	200	70	1,000	>2,000	15	11.0
GR637PC	50	N	200	50	1,000	>2,000	10	17.0
GR640PC	20	N	200	50	1,000	>2,000	15	7.5
GR642PC	20	N	200	50	700	>2,000	15	5.8
GR644PC	50	300	200	70	700	>2,000	10	6.3
GR647PC	10	N	200	70	700	>2,000	15	2.8
GR650PC	10	N	200	70	500	>2,000	10	3.4
GR653PC	10	N	200	100	700	>2,000	15	26.0
GR656PC	10	N	200	70	700	>2,000	15	9.0
GR658PC	10	N	200	50	700	>2,000	60	13.0
GR661PC	70	150	200	70	700	>2,000	15	7.2
GR664PC	50	N	200	70	1,000	>2,000	10	16.0
GR673PC	70	N	500	150	700	>2,000	10	39.0
GR682PC	50	N	200	70	1,000	>2,000	10	11.0
GR685PC	50	N	200	50	1,000	>2,000	10	9.0
GR688PC	50	N	200	100	1,000	>2,000	10	21.0
GR691PC	30	N	200	70	700	>2,000	10	10.0
GR812PC	30	N	200	70	1,000	>2,000	10	11.0
GR818PC	30	N	200	100	500	>2,000	10	8.7
GR825PC	70	N	200	100	1,000	>2,000	10	8.7
GR827PC	10	70	N	150	200	>2,000	15	8.7
GR830PC	10	N	N	150	200	>2,000	15	2.4
GR836PC	30	200	200	50	500	>2,000	20	2.9
GR839PC	30	150	200	150	500	>2,000	15	1.5
GR845PC	30	N	200	100	700	>2,000	20	6.3
GR851PC	20	N	N	200	200	>2,000	25	2.2
GR856PC	10	N	N	150	300	>2,000	15	1.9
GR858PC	10	N	N	70	200	>2,000	15	25.0
GR869PC	50	N	200	70	700	>2,000	10	1.8

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR810LS	741,675	384,666	3.0	.50	.10	1.0	1,000	300	300	1.0	10	30	10
GR813LS	741,700	384,662	3.0	.70	.15	1.0	1,000	200	500	1.0	15	50	10
GR816LS	740,520	384,490	3.0	.70	.20	.7	1,000	300	500	1.5	15	70	10
GR819LS	740,540	384,493	3.0	.50	.15	1.0	700	300	500	1.5	15	70	10
GR821LS	743,120	385,186	2.0	.30	.15	1.0	1,000	200	300	1.0	7	20	5
GR823LS	741,990	385,156	3.0	.30	.10	1.0	1,000	300	500	1.0	10	70	7
GR824LS	741,560	385,118	2.0	.30	.05	1.0	700	150	500	1.0	10	70	7
GR826LS	745,360	385,088	2.0	.20	<.05	>1.0	1,000	200	500	<1.0	10	50	10
GR828LS	745,240	385,048	3.0	.20	.07	>1.0	1,000	300	500	1.0	10	50	10
GR831LS	745,290	385,048	3.0	.20	.15	>1.0	1,000	200	500	1.5	10	50	7
GR837LS	745,840	384,442	2.0	.30	.15	1.0	1,500	150	300	<1.0	10	50	7
GR840LS	743,760	384,474	3.0	.50	.10	1.0	1,000	150	700	1.0	15	50	7
GR843LS	743,700	384,472	2.0	.30	.07	1.0	700	200	500	1.0	10	50	7
GR846LS	743,660	384,450	3.0	.20	.05	>1.0	700	300	300	1.5	15	50	7
GR531LS	747,900	384,776	3.0	.70	.07	1.0	1,000	200	700	1.5	30	50	10
GR534LS	747,900	384,694	3.0	.30	.10	>1.0	1,000	200	300	1.0	15	70	15
GR537LS	747,665	384,680	2.0	.20	.10	>1.0	700	300	300	1.0	10	20	7
GR361LS	739,800	384,418	1.5	.20	.15	.7	300	200	300	1.5	10	15	5
GR363LS	739,600	384,213	1.5	.30	.20	1.0	500	200	300	1.5	10	20	5
GR365LS	740,210	384,060	1.5	.30	.07	.5	300	150	300	1.0	7	20	7
GR367LS	741,740	384,146	1.5	.50	.10	.7	500	200	300	1.0	10	20	7
GR849LS	744,230	384,399	1.5	.20	.05	.7	700	150	300	<1.0	10	20	5
GR852LS	744,160	384,383	2.0	.20	.05	.7	700	150	300	1.0	10	30	5
GR855LS	746,880	384,834	3.0	.20	.05	1.0	700	150	500	1.0	15	50	10
GR857LS	746,840	384,819	2.0	.15	.05	1.0	700	150	300	1.0	10	50	10
GR859LS	745,700	384,660	2.0	.15	.07	1.0	700	200	300	<1.0	10	50	10
GR861LS	745,710	384,654	2.0	.15	.05	1.0	1,000	200	300	<1.0	10	50	10
GR867LS	746,170	384,640	2.0	.20	.05	.7	700	200	500	1.0	10	50	5
GR870LS	746,490	384,638	2.0	.15	.05	1.0	700	200	300	1.0	7	20	7
GR602LS	738,995	385,024	1.5	.30	<.05	.7	700	200	300	1.0	7	15	5
GR604LS	738,890	385,014	3.0	.70	.05	1.0	1,000	300	700	1.5	20	70	20
GR610LS	739,200	384,964	3.0	.70	.05	1.0	1,000	100	1,000	1.5	20	70	15
GR614LS	741,460	384,934	2.0	.70	.07	.7	1,000	100	500	1.0	15	70	10
GR620LS	741,530	384,935	3.0	.50	.10	.7	700	100	500	1.0	10	30	10
GR623LS	741,440	384,963	3.0	.70	<.05	1.0	500	150	500	1.5	20	70	10
GR626LS	741,260	384,961	2.0	.50	.07	.7	500	100	500	1.5	15	50	7
GR629LS	740,800	384,988	3.0	.70	.05	.7	1,000	150	700	1.5	20	70	10
GR643LS	744,800	385,124	3.0	.50	.10	1.0	1,000	150	500	1.5	20	50	15
GR645LS	745,490	385,080	3.0	.70	.07	1.0	700	200	700	1.5	20	100	20
GR649LS	745,780	385,082	3.0	.70	.07	1.0	700	150	700	1.5	30	100	30
GR652LS	745,800	385,096	3.0	.30	.10	1.0	700	200	700	1.5	15	70	15
GR654LS	748,450	385,033	3.0	.70	.10	1.0	1,000	200	500	1.5	30	100	20
GR657LS	748,820	385,019	3.0	.50	.10	>1.0	1,000	200	700	1.0	30	70	15
GR659LS	738,880	384,806	3.0	.70	.10	>1.0	700	200	700	1.0	15	70	15
GR662LS	738,200	384,746	3.0	.70	.07	.7	700	200	1,000	1.5	20	100	15

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR810LS	200	20	15	20	5	50	50	>1,000	45	1.60
GR813LS	100	20	15	30	7	70	70	1,000	50	1.00
GR816LS	150	20	15	50	10	70	100	>1,000	65	1.40
GR819LS	150	20	15	30	10	70	200	1,000	50	1.40
GR821LS	100	20	10	20	5	50	70	>1,000	35	1.40
GR823LS	150	20	10	50	10	50	100	>1,000	45	1.20
GR824LS	20	20	10	30	10	70	50	700	30	1.10
GR826LS	150	30	10	20	10	50	70	>1,000	35	1.70
GR828LS	200	50	<5	30	10	50	150	1,000	30	1.80
GR831LS	200	30	<5	20	10	50	70	700	40	1.50
GR837LS	100	20	10	30	10	50	70	>1,000	40	1.20
GR840LS	100	30	10	50	10	70	150	>1,000	50	.90
GR843LS	150	20	10	20	10	50	100	>1,000	40	1.10
GR846LS	200	30	<5	30	10	50	100	>1,000	40	1.40
GR531LS	100	20	15	50	10	70	50	1,000	60	1.80
GR534LS	200	30	10	50	10	50	50	1,000	60	1.60
GR537LS	150	20	10	15	10	50	150	>1,000	45	1.50
GR361LS	100	<20	10	15	5	50	50	1,000	50	1.40
GR363LS	150	<20	10	20	7	50	100	>1,000	40	1.40
GR365LS	100	<20	10	20	5	50	70	700	50	1.90
GR367LS	150	<20	10	30	7	50	70	1,000	55	1.00
GR849LS	150	<20	10	20	5	30	150	>1,000	45	1.20
GR852LS	100	20	10	20	7	50	70	1,000	45	.90
GR855LS	150	30	15	30	10	70	50	500	45	1.10
GR857LS	100	20	15	20	10	50	50	300	50	1.30
GR859LS	300	30	10	20	7	50	70	1,000	40	1.60
GR861LS	200	30	10	20	10	50	100	1,000	50	1.60
GR867LS	70	<20	10	30	10	50	70	>1,000	45	1.20
GR870LS	100	30	10	20	10	50	70	1,000	45	1.00
GR602LS	<20	20	10	10	5	50	20	150	35	.45
GR604LS	150	30	15	50	10	70	50	500	65	2.00
GR610LS	70	<20	20	50	10	70	30	300	125	1.90
GR614LS	50	<20	15	30	10	70	50	>1,000	80	2.40
GR620LS	50	<20	10	20	10	50	50	300	80	1.00
GR623LS	50	<20	20	20	10	50	50	1,000	100	2.00
GR626LS	70	<20	15	20	10	50	30	500	80	1.90
GR629LS	70	20	20	30	10	70	30	300	80	1.60
GR643LS	100	20	15	50	10	70	50	500	95	2.30
GR645LS	150	30	20	70	15	70	50	300	70	2.30
GR649LS	150	20	20	70	15	70	70	1,000	90	2.70
GR652LS	150	20	15	30	10	50	70	300	70	2.40
GR654LS	150	20	20	70	10	70	70	1,000	70	2.80
GR657LS	150	30	20	50	10	50	70	>1,000	70	2.50
GR659LS	150	20	20	50	10	70	70	1,000	70	1.00
GR662LS	50	20	20	100	15	70	30	300	70	1.00

Rich Mtn. Geochemistry--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR665LS	737,640	384,463	2.0	.70	.07	1.0	1,000	200	1,000	1.5	20	70	7
GR668LS	741,320	384,630	2.0	.70	.10	1.0	700	200	700	1.0	20	70	10
GR671LS	741,350	384,627	2.0	.70	.10	1.0	700	300	500	1.0	20	70	15
GR674LS	741,080	384,608	3.0	.70	.20	1.0	1,000	300	500	1.5	20	70	15
GR677LS	740,210	384,539	3.0	.70	.10	1.0	700	200	700	1.5	20	70	10
GR680LS	740,260	384,548	3.0	1.00	.20	.7	700	200	700	1.5	20	100	20
GR683LS	740,180	384,550	2.0	.70	.15	1.0	700	200	700	1.0	15	50	7
GR686LS	742,590	384,180	2.0	.50	.15	1.0	700	200	500	1.0	15	50	10
GR689LS	744,689	384,340	2.0	.30	.10	1.0	700	200	300	1.0	10	30	7
GR692LS	744,480	384,344	3.0	.50	.10	1.0	700	200	500	1.0	15	30	10
GR641LS	742,690	384,876	5.0	.70	.15	1.0	1,000	200	700	1.5	20	50	10
GR607LS	739,140	384,962	5.0	.70	.05	1.0	1,000	300	700	1.0	20	70	20

Rich Mtn. Geochemistry--continued

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR665LS	70	20	15	50	10	70	50	500	115	.90
GR668LS	100	<20	20	50	10	70	70	1,000	70	1.30
GR671LS	150	20	20	50	10	50	100	>1,000	55	1.40
GR674LS	150	20	15	50	10	50	100	>1,000	55	2.30
GR677LS	150	<20	15	50	10	70	100	1,000	70	2.30
GR680LS	100	20	50	50	10	70	100	500	75	2.70
GR683LS	100	<20	15	30	10	50	70	1,000	50	1.90
GR686LS	200	<20	15	30	10	50	100	>1,000	60	1.00
GR689LS	150	<20	15	20	10	50	100	>1,000	50	.80
GR692LS	150	<20	15	30	10	50	100	>1,000	60	1.50
GR641LS	70	20	15	50	10	70	50	700	75	1.90
GR607LS	100	30	20	70	10	70	50	500	80	1.50

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR500S	738,410	384,743	5.0	.70	<.05	1.00	200	200	300	1.5	5	50	20
GR504S	742,540	384,777	5.0	1.00	.05	1.00	500	200	700	1.5	10	100	30
GR505S	741,995	384,786	5.0	.70	<.05	.50	500	100	500	1.5	10	50	20
GR506S	741,540	384,780	5.0	.70	<.05	.50	700	100	500	1.5	7	70	20
GR508S	741,160	384,768	5.0	.70	<.05	.50	300	150	500	1.5	20	50	20
GR509S	740,990	384,764	5.0	.70	<.05	.50	1,000	200	500	1.5	5	50	20
GR511S	740,740	384,913	3.0	.50	<.05	.50	200	100	500	1.5	5	50	15
GR512S	741,360	384,946	5.0	.70	<.05	.30	200	150	300	2.0	5	50	30
GR516S	744,340	384,939	7.0	.70	<.05	1.00	700	200	700	1.5	30	70	50
GR520S	745,010	385,036	3.0	.15	<.05	1.00	200	300	300	1.5	<5	50	15
GR524S	746,770	384,928	5.0	.70	<.05	.70	300	300	500	2.0	10	50	50
GR525S	746,770	384,900	5.0	.15	<.05	1.00	300	200	200	1.0	15	50	20
GR526S	747,510	384,860	5.0	.20	<.05	.70	200	150	500	1.0	5	50	20
GR529S	747,900	384,776	5.0	1.00	.30	.50	500	150	500	2.0	5	50	20
GR521S	745,200	385,073	5.0	.50	<.05	.50	100	150	500	2.0	20	50	50
GR002S	742,350	385,010	3.0	.30	<.05	.50	200	100	500	1.0	<5	50	20
GR005S	742,180	384,964	5.0	.30	<.05	.50	200	100	500	2.0	<5	70	20
GR008S	742,550	384,942	7.0	1.00	<.05	.50	1,000	300	500	2.0	50	50	50
GR009S	742,510	384,906	7.0	.70	<.05	.50	300	200	500	3.0	15	50	30
GR014S	742,460	384,857	2.0	.30	<.05	.30	500	100	500	1.5	20	20	15
GR017S	742,080	384,852	2.0	.30	<.05	.70	500	200	500	1.0	10	30	15
GR019S	741,780	384,886	2.0	.20	<.05	.50	200	200	500	1.0	<5	50	20
GR022S	741,280	384,849	3.0	.70	<.05	.70	300	200	500	1.0	<5	70	15
GR023S	741,110	384,871	5.0	1.00	<.05	.50	500	150	500	2.0	20	70	20
GR024S	741,020	384,887	5.0	.70	<.05	.50	500	150	500	2.0	20	50	20
GR025S	741,320	384,915	5.0	.70	.07	.50	300	200	500	2.0	20	50	20
GR027S	743,440	384,977	5.0	.70	.10	.50	500	200	500	1.5	10	70	20
GR029S	743,920	385,025	3.0	.30	<.05	.50	500	100	500	2.0	10	70	20
GR030S	744,160	385,013	5.0	.50	<.05	.70	500	100	500	2.0	10	70	20
GR032S	742,998	385,012	5.0	.50	<.05	.70	500	100	500	2.0	7	70	30
GR011S	742,660	384,886	3.0	.30	.05	.50	500	150	500	1.5	7	20	7
GR035S	743,500	385,037	5.0	1.00	.50	1.00	700	200	500	2.0	20	70	30
GR037S	744,030	385,073	2.0	.30	<.05	.30	300	100	300	2.0	10	50	15
GR038S	744,420	385,080	5.0	.50	<.05	.70	150	100	500	2.0	7	50	20
GR039S	744,390	385,110	3.0	.10	<.05	1.00	200	200	500	1.0	N	50	10
GR041S	746,300	384,853	3.0	.20	<.05	.70	200	100	500	1.0	<5	50	15
GR043S	746,810	384,822	5.0	.50	<.05	.70	300	200	500	2.0	10	70	30
GR046S	747,090	384,834	5.0	.30	<.05	1.00	500	100	500	1.5	5	70	20
GR048S	747,410	384,780	5.0	.15	<.05	.50	150	100	500	1.5	N	50	20
GR049S	747,680	384,749	5.0	.30	<.05	.50	150	100	500	1.5	N	50	20
GR050S	747,810	384,721	3.0	.50	<.05	.50	200	50	500	1.5	<5	50	10
GR057S	747,090	384,760	5.0	.50	<.05	.70	700	100	500	1.5	<5	50	20
GR058S	746,640	384,751	5.0	.70	<.05	.70	700	200	700	1.5	10	50	30
GR060S	747,070	384,718	5.0	.30	<.05	.50	300	200	500	1.5	<5	50	15
GR061S	747,415	384,699	5.0	.50	<.05	.50	300	200	500	1.5	<5	50	30

Rich Mtn. Geochemistry

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR500S	50	<20	15	20	10	100	20	1,000	70	2.70
GR504S	100	<20	20	30	15	100	20	700	75	3.10
GR505S	30	<20	20	20	10	100	20	1,000	60	4.20
GR506S	50	<20	15	20	10	100	20	500	40	3.00
GR508S	70	<20	50	20	10	100	30	500	65	3.70
GR509S	100	<20	20	20	10	100	50	1,000	40	3.10
GR511S	20	<20	20	10	7	50	20	500	80	2.40
GR512S	50	<20	15	30	10	50	50	300	20	4.10
GR516S	150	20	50	50	20	100	50	200	20	1.70
GR520S	100	<20	15	20	7	70	30	1,000	15	1.80
GR524S	100	<20	20	30	15	100	30	200	90	2.60
GR525S	50	<20	20	15	10	100	30	1,000	50	3.00
GR526S	50	<20	20	15	10	100	50	700	80	3.70
GR529S	70	<20	30	50	15	100	50	500	105	6.20
GR521S	100	20	20	70	15	100	50	300	10	1.30
GR002S	50	<20	20	30	7	70	30	700	40	2.10
GR005S	50	<20	20	20	15	100	20	500	50	2.60
GR008S	100	<20	50	30	20	100	50	100	30	5.50
GR009S	70	<20	20	20	15	100	50	300	60	4.20
GR014S	30	<20	15	15	5	50	20	200	90	3.00
GR017S	30	<20	15	30	5	50	50	700	70	1.80
GR019S	30	<20	15	50	7	50	30	500	70	2.10
GR022S	30	<20	15	20	7	70	20	1,000	30	3.00
GR023S	100	<20	15	30	10	50	50	500	85	2.10
GR024S	100	<20	15	30	10	50	50	500	60	1.80
GR025S	70	<20	15	50	7	70	30	1,000	45	1.50
GR027S	30	<20	15	30	10	70	50	300	30	2.30
GR029S	50	<20	15	20	10	70	30	300	75	1.80
GR030S	50	<20	20	30	10	100	50	700	25	1.50
GR032S	50	20	20	50	10	100	30	300	30	1.70
GR011S	50	<20	10	10	10	50	20	>1,000	60	1.30
GR035S	100	<20	15	50	10	100	50	300	80	1.70
GR037S	50	20	10	10	5	50	30	100	70	1.90
GR038S	100	<20	15	30	10	70	20	1,000	40	.95
GR039S	50	<20	5	20	5	50	30	1,000	70	.75
GR041S	50	20	7	50	7	50	30	300	80	.95
GR043S	100	20	15	30	10	100	50	500	75	2.10
GR046S	70	20	15	30	10	50	30	1,000	35	2.10
GR048S	50	20	15	30	7	100	30	500	35	2.70
GR049S	20	<20	20	30	10	100	20	500	45	2.00
GR050S	50	<20	20	20	5	70	20	500	20	2.10
GR057S	50	20	15	30	7	70	30	500	45	1.90
GR058S	100	<20	20	50	10	70	50	500	95	2.70
GR060S	50	<20	20	30	10	70	30	700	80	1.30
GR061S	30	<20	20	50	10	70	20	300	80	3.30

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR205S	743,680	384,840	5.0	.70	.05	.70	200	150	500	1.5	5	50	20
GR208S	743,060	384,973	3.0	.70	.07	.70	2,000	200	500	2.0	5	50	20
GR211S	742,350	385,010	5.0	.50	<.05	.50	200	150	150	1.5	5	15	15
GR214S	746,900	384,947	5.0	.30	<.05	1.00	1,000	200	300	1.5	7	50	20
GR216S	747,600	384,982	3.0	.20	<.05	1.00	1,500	100	300	1.5	15	50	20
GR217S	747,940	384,978	5.0	.30	<.05	1.00	500	100	300	1.5	<5	50	20
GR218S	748,320	384,979	7.0	.50	<.05	1.00	300	200	500	2.0	5	70	30
GR221S	738,980	384,896	5.0	.20	<.05	.70	200	200	500	1.5	N	50	10
GR222S	738,900	384,921	5.0	.20	<.05	1.00	300	150	300	2.0	<5	50	10
GR224S	746,630	384,696	2.0	.15	<.05	.70	500	200	300	1.5	N	50	15
GR225S	746,990	384,652	5.0	1.50	.05	1.00	500	200	500	2.0	20	100	30
GR228S	740,330	384,667	2.0	.70	<.05	.70	500	200	500	1.5	5	70	10
GR229S	740,285	384,617	3.0	1.00	.05	.70	500	200	700	2.0	7	100	20
GR234S	742,910	384,649	5.0	1.50	.05	.70	1,500	200	500	2.0	30	100	30
GR236S	743,120	384,537	1.0	.05	<.05	.15	300	50	50	<1.0	N	30	7
GR540S	742,885	384,746	2.0	.30	<.05	.30	300	200	500	1.5	N	50	20
GR545S	742,300	384,681	5.0	1.00	.05	1.00	500	200	500	2.0	<5	100	15
GR546S	741,720	384,279	5.0	.50	<.05	1.00	500	100	500	1.0	<5	100	15
GR552S	741,780	384,240	2.0	.70	.05	.70	500	200	300	2.0	10	50	20
GR553S	742,320	384,213	5.0	1.50	.05	1.00	500	150	300	2.0	15	70	50
GR561S	744,580	384,475	5.0	.70	.05	1.00	500	30	500	1.5	15	50	50
GR565S	745,440	384,953	5.0	.70	.05	1.00	300	150	500	2.0	5	70	20
GR567S	745,260	384,999	3.0	.15	<.05	.50	300	100	100	1.5	N	15	20
GR568S	744,480	384,515	3.0	.70	.05	.50	300	150	300	2.0	5	50	20
GR569S	744,870	384,440	3.0	.70	<.05	.70	300	100	700	2.0	<5	50	30
GR239S	743,680	384,474	2.0	.50	<.05	.70	300	100	500	2.0	5	50	20
GR243S	744,820	384,489	3.0	.30	<.05	.50	200	100	200	1.5	<5	50	20
GR244S	745,180	384,454	5.0	1.00	<.05	.70	300	200	500	2.0	5	70	20
GR245S	745,580	384,438	3.0	.20	<.05	.50	200	100	200	1.5	N	50	20
GR247S	745,220	384,405	3.0	.20	<.05	.50	200	100	500	1.5	<5	50	20
GR255S	743,400	384,778	5.0	.70	.05	.30	700	100	500	1.5	7	70	15
GR256S	743,200	384,810	7.0	.70	.07	1.00	1,000	100	500	2.0	15	70	20
GR258S	744,065	384,790	5.0	.70	.05	.50	300	150	500	2.0	7	70	30
GR262S	745,440	384,752	5.0	.50	<.05	.50	200	100	500	1.5	<5	70	20
GR402S	744,520	384,801	5.0	.70	.05	.50	500	100	500	1.5	<5	50	15
GR404S	744,770	384,837	5.0	.70	.07	.70	1,000	100	300	1.5	10	70	30
GR406S	745,380	384,847	3.0	.70	.05	.70	700	100	200	1.0	5	50	30
GR407S	745,520	384,982	5.0	.50	<.05	1.00	1,000	200	300	1.5	10	50	30
GR412S	748,260	384,894	7.0	.50	<.05	1.00	300	200	300	2.0	10	70	50
GR414S	739,330	384,807	7.0	.50	<.05	1.00	500	150	500	2.0	10	70	30
GR415S	739,600	384,864	5.0	.30	<.05	1.00	300	150	300	2.0	5	50	30
GR424S	744,230	384,659	3.0	.50	<.05	.70	500	150	500	1.5	7	50	20
GR427S	740,370	384,773	5.0	1.00	<.05	.50	2,000	150	500	3.0	30	50	70
GR429S	739,995	384,732	5.0	1.50	<.05	.30	500	200	500	3.0	15	30	20
GR433S	739,435	384,680	5.0	.70	.05	.30	1,500	150	700	3.0	20	50	20

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR205S	70	N	20	20	10	100	50	200	50	2.10
GR208S	50	N	20	20	7	100	30	200	40	2.10
GR211S	50	N	15	15	5	70	50	300	80	4.90
GR214S	70	<20	15	20	10	100	30	500	80	3.70
GR216S	50	<20	20	20	10	100	30	1,000	35	1.70
GR217S	50	<20	20	30	15	100	20	700	70	2.40
GR218S	50	20	20	30	15	100	30	1,000	75	3.40
GR221S	30	<20	15	20	10	70	20	700	70	2.90
GR222S	30	N	20	20	10	100	20	700	40	2.10
GR224S	20	<20	10	30	7	70	10	500	70	1.30
GR225S	100	N	30	50	15	100	50	500	65	2.00
GR228S	70	N	10	50	7	50	50	1,000	70	2.90
GR229S	100	N	15	50	10	100	70	300	85	2.10
GR234S	100	N	20	50	15	100	50	200	80	5.30
GR236S	N	N	5	30	7	20	10	100	40	2.00
GR540S	30	N	7	50	7	50	30	300	25	1.80
GR545S	100	<20	20	50	15	70	50	500	20	3.00
GR546S	70	<20	20	30	15	70	50	1,000	80	3.40
GR552S	30	N	20	20	10	100	50	700	20	1.50
GR553S	70	<20	50	20	15	100	50	300	80	2.50
GR561S	70	<20	30	20	20	100	30	500	40	4.50
GR565S	50	<20	20	15	15	100	30	300	50	2.70
GR567S	70	<20	15	15	7	50	20	200	25	4.70
GR568S	50	N	20	20	7	70	30	200	90	1.50
GR569S	50	<20	20	30	10	70	50	700	80	1.70
GR239S	50	N	15	20	7	70	50	200	90	1.10
GR243S	50	N	20	30	10	70	30	200	85	2.50
GR244S	100	N	20	30	10	100	50	1,000	60	1.00
GR245S	50	N	15	30	7	70	15	500	50	1.90
GR247S	70	<20	15	30	7	70	20	500	40	2.10
GR255S	30	<20	20	20	7	100	20	300	60	3.50
GR256S	70	20	30	30	10	100	50	700	90	3.00
GR258S	100	<20	30	30	10	100	50	300	85	3.10
GR262S	70	<20	15	30	10	100	50	500	65	2.10
GR402S	50	N	15	30	7	100	20	300	85	1.90
GR404S	50	<20	20	30	10	100	30	500	100	2.60
GR406S	N	N	30	20	10	100	20	200	70	2.70
GR407S	70	20	30	30	10	100	30	500	100	1.90
GR412S	100	20	30	50	15	100	50	500	40	2.10
GR414S	50	20	20	50	10	100	50	500	80	2.90
GR415S	100	20	50	50	10	100	50	1,000	110	2.00
GR424S	50	N	50	20	7	100	20	>1,000	50	2.80
GR427S	150	N	30	50	15	70	50	300	20	7.30
GR429S	50	N	30	20	7	100	30	200	40	2.50
GR433S	100	<20	20	50	10	70	50	200	55	1.10

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR435S	739,130	384,618	5.0	.50	<.05	1.00	1,000	300	500	2.0	20	50	20
GR436S	738,660	384,656	3.0	.30	<.05	.50	500	100	300	1.5	10	50	20
GR440S	740,920	384,660	5.0	.70	<.05	.30	200	150	500	2.0	7	50	20
GR450S	742,810	384,315	5.0	.50	.10	.30	1,000	150	500	1.5	7	50	15
GR452S	742,850	384,394	5.0	.15	<.05	1.00	200	150	300	2.0	5	50	15
GR456S	743,280	384,876	5.0	.50	<.05	.50	300	150	700	2.0	20	50	20
GR461S	745,090	384,948	3.0	.20	.05	.50	1,500	100	500	2.0	5	50	20
GR464S	740,820	384,792	5.0	1.00	<.05	.50	700	150	500	2.0	15	50	20
GR801S	743,840	384,711	3.0	.50	<.05	.50	500	150	300	2.0	7	50	30
GR805S	745,770	384,615	3.0	.50	<.05	.50	1,000	150	500	1.0	7	50	20
GR806S	738,630	384,616	5.0	.50	<.05	.50	300	150	500	2.0	20	50	30
GR808S	737,760	384,559	3.0	.50	.05	.30	1,000	100	500	1.0	10	30	20
GR164S	740,940	384,747	5.0	.70	<.05	.30	300	200	500	1.5	20	50	20
GR167S	740,080	384,797	5.0	.50	<.05	.50	300	150	500	1.5	10	50	30
GR168S	739,680	384,781	3.0	.50	<.05	.30	200	50	500	1.5	5	50	20
GR137S	738,530	384,511	5.0	.70	.05	.30	500	50	500	1.5	7	50	20
GR138S	738,300	384,485	3.0	.15	<.05	.50	300	70	300	1.0	10	50	10
GR139S	738,180	384,441	5.0	.20	<.05	.50	150	200	500	2.0	5	70	30
GR140S	742,090	384,742	3.0	.50	<.05	.30	200	30	200	1.5	7	50	20
GR143S	741,380	384,715	5.0	1.00	<.05	.50	500	200	500	2.0	30	100	30
GR148S	741,240	384,616	3.0	.70	.05	.50	300	200	500	2.0	7	50	20
GR149S	742,380	384,506	5.0	.70	<.05	.50	300	150	500	2.0	7	70	30
GR150S	742,170	384,496	2.0	.50	<.05	.50	300	100	500	1.0	5	20	7
GR155S	742,090	384,398	5.0	.50	<.05	.30	700	70	200	1.0	5	30	30
GR158S	741,540	384,397	3.0	.70	.05	.50	500	100	300	2.0	7	50	20
GR159S	741,100	384,446	3.0	.50	<.05	.50	100	50	500	2.0	5	50	30
GR161S	740,630	384,429	3.0	.50	<.05	.50	200	100	300	1.5	<5	30	15
GR162S	740,260	384,472	3.0	.30	<.05	.50	500	20	70	1.0	10	50	20
GR163S	740,190	384,505	5.0	.50	<.05	.50	200	100	200	1.5	20	50	50
GR100S	745,850	384,885	5.0	.50	<.05	.50	1,000	100	300	1.5	20	50	30
GR102S	746,200	384,903	5.0	1.00	<.05	.70	700	70	300	1.5	20	50	10
GR103S	746,370	384,947	5.0	.50	.05	.70	500	100	300	1.5	7	70	20
GR104S	746,010	384,980	5.0	.20	<.05	.50	50	150	500	1.5	N	50	50
GR108S	739,510	384,825	3.0	.30	<.05	1.00	500	200	300	1.5	10	50	30
GR110S	739,310	384,842	5.0	.30	<.05	.50	200	200	700	2.0	<5	70	50
GR112S	738,740	384,850	5.0	.50	<.05	.50	200	200	500	2.0	15	50	30
GR114S	738,270	384,865	5.0	.20	<.05	.50	200	200	200	1.5	5	70	20
GR118S	743,340	384,728	3.0	.50	<.05	.30	300	70	500	1.5	5	50	30
GR120S	743,395	384,684	5.0	1.00	.20	.50	500	70	500	2.0	15	50	20
GR127S	744,510	384,582	5.0	.50	<.05	.50	150	200	500	2.0	10	50	30
GR129S	745,120	384,570	5.0	.70	.05	.50	1,000	100	500	1.5	20	50	30
GR131S	746,320	384,567	2.0	.50	<.05	.30	300	100	500	2.0	10	50	30
GR132S	739,260	384,624	5.0	.30	<.05	.50	150	100	500	1.5	7	50	30
GR134S	738,890	384,566	5.0	.20	<.05	.50	300	150	500	1.5	15	30	30
GR126S	744,200	384,635	5.0	.50	<.05	.30	1,000	100	300	2.0	15	70	30

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR435S	50	N	20	50	10	70	50	500	45	1.30
GR436S	20	20	20	30	7	50	30	500	20	2.20
GR440S	30	N	15	30	10	50	50	200	50	1.80
GR450S	20	N	20	50	7	50	30	700	70	1.10
GR452S	100	20	20	50	10	70	50	500	60	1.30
GR456S	50	<20	20	50	10	100	50	500	80	1.20
GR461S	50	N	15	30	7	100	50	300	45	2.50
GR464S	100	<20	20	50	10	100	70	300	45	3.60
GR801S	50	<20	10	20	7	100	20	150	60	1.10
GR805S	50	N	10	20	7	100	20	700	60	2.20
GR806S	100	20	20	20	10	100	50	300	50	1.80
GR808S	50	N	15	50	5	100	30	500	55	1.10
GR164S	100	<20	30	20	10	100	50	300	50	6.70
GR167S	50	N	30	20	15	100	30	200	20	1.30
GR168S	N	<20	15	30	5	100	30	500	20	1.40
GR137S	30	<20	15	30	7	100	50	300	25	1.10
GR138S	30	<20	10	15	7	50	30	500	35	.90
GR139S	100	<20	15	30	10	100	50	200	35	1.10
GR140S	50	N	15	30	7	100	30	500	50	4.10
GR143S	150	<20	20	30	20	100	70	500	45	5.60
GR148S	70	N	15	30	10	70	50	300	30	2.10
GR149S	100	<20	15	30	10	100	50	300	50	1.90
GR150S	50	N	15	15	5	50	30	500	35	2.50
GR155S	30	N	20	20	5	50	50	100	55	2.80
GR158S	30	<20	20	30	7	100	30	100	70	1.50
GR159S	N	20	20	30	7	100	30	150	70	2.50
GR161S	30	<20	15	20	5	50	30	300	50	1.50
GR162S	100	<20	20	20	10	100	20	1,000	55	2.20
GR163S	70	N	20	20	15	100	30	200	80	5.90
GR100S	100	<20	15	20	10	100	30	300	50	2.10
GR102S	50	20	20	15	10	70	30	700	75	1.70
GR103S	50	<20	10	20	10	100	30	300	60	1.70
GR104S	100	20	10	70	15	100	15	200	10	1.80
GR108S	100	20	10	15	7	70	20	500	35	1.30
GR110S	100	30	15	20	15	70	20	200	15	1.90
GR112S	100	20	20	50	10	70	30	500	100	2.10
GR114S	70	<20	15	50	10	100	15	500	35	2.30
GR118S	50	<20	15	50	7	100	20	700	70	.90
GR120S	50	N	15	20	7	100	20	500	65	1.70
GR127S	100	<20	15	50	10	100	20	300	60	1.30
GR129S	100	N	20	30	10	100	20	1,000	70	3.50
GR131S	50	N	10	30	5	50	15	200	95	2.10
GR132S	70	<20	20	30	7	100	15	200	50	1.90
GR134S	70	<20	15	30	5	50	20	300	25	1.10
GR126S	100	N	20	30	7	70	20	200	85	1.50

Sample	X coordinate	Y coordinate	Fe-pct.s	Mg-pct.s	Ca-pct.s	Ti-pct.s	Mn-ppms	B-ppms	Ba-ppms	Be-ppms	Co-ppms	Cr-ppms	Cu-ppms
GR300S	742,640	385,108	5.0	.70	<.05	.50	700	200	300	2.0	15	50	30
GR302S	743,180	385,142	5.0	.70	<.05	.50	500	200	500	2.0	15	50	20
GR303S	743,650	385,159	5.0	.50	<.05	.50	200	200	500	1.5	<5	70	20
GR304S	745,980	385,069	5.0	.70	.05	.50	1,000	200	700	2.0	30	70	20
GR305S	746,280	385,061	5.0	.50	<.05	.50	1,000	200	700	2.0	20	70	20
GR306S	746,710	385,053	5.0	.50	<.05	.50	500	150	500	1.5	30	70	50
GR309S	747,270	385,037	5.0	.50	.05	.50	700	150	500	2.0	30	70	30
GR310S	747,650	385,038	5.0	.50	<.05	.50	2,000	200	500	2.0	30	70	20
GR311S	748,120	385,032	3.0	.50	<.05	.50	1,000	200	500	2.0	20	70	30
GR312S	748,470	385,016	3.0	.20	<.05	.20	200	100	200	1.5	<5	30	20
GR313S	739,920	384,882	3.0	.30	<.05	.50	1,500	100	500	2.0	20	50	30
GR314S	740,210	384,928	5.0	.50	<.05	.30	300	100	500	2.0	15	70	30
GR315S	740,170	384,956	5.0	.30	<.05	.70	100	200	500	2.0	5	100	50
GR316S	740,250	384,973	3.0	.70	<.05	.50	1,000	150	500	1.5	10	70	20
GR317S	740,430	384,974	3.0	.20	<.05	.50	150	150	500	2.0	5	70	20
GR318S	740,480	384,999	3.0	.20	<.05	.50	300	100	500	2.0	5	50	15
GR320S	740,660	384,990	3.0	.20	<.05	.50	300	100	500	1.5	5	50	20
GR321S	746,110	384,864	5.0	.20	<.05	.50	300	100	100	1.0	7	70	20
GR325S	746,500	384,782	3.0	.30	<.05	.50	200	100	300	1.5	5	50	15
GR327S	746,160	384,820	5.0	.10	<.05	1.00	200	150	150	1.5	5	30	20
GR328S	745,700	384,717	3.0	.50	<.05	.50	500	70	100	1.5	20	50	20
GR330S	746,010	384,666	5.0	.50	.05	1.00	500	200	200	1.5	20	50	20
GR331S	746,580	384,643	5.0	.70	.05	.50	300	150	300	1.5	10	50	20
GR332S	739,640	384,667	5.0	.50	<.05	.70	300	150	500	1.5	10	50	20
GR334S	739,480	384,600	3.0	.20	<.05	.50	300	50	500	1.0	5	50	10
GR335S	741,420	384,766	5.0	.50	<.05	.50	300	150	500	1.5	10	50	20
GR336S	741,270	384,736	5.0	.70	<.05	.50	200	100	500	1.0	5	50	15
GR337S	741,270	384,695	5.0	1.00	<.05	.50	100	100	700	2.0	20	70	50
GR339S	741,380	384,649	3.0	.70	<.05	.50	300	150	300	1.5	10	70	30
GR342S	742,000	384,272	3.0	.50	.05	.50	700	150	500	1.5	10	50	15
GR344S	742,340	384,514	5.0	.70	.05	.50	700	100	500	1.5	10	50	20
GR345S	742,020	384,502	5.0	.50	<.05	.30	1,000	100	500	2.0	10	50	20
GR347S	741,795	384,587	5.0	.70	<.05	.50	500	200	500	2.0	20	50	30
GR349S	741,330	384,537	5.0	.70	.05	.50	1,000	200	500	2.0	20	70	20
GR350S	740,700	384,523	5.0	.50	<.05	.50	300	200	500	1.5	7	50	20
GR351S	743,630	384,610	5.0	1.00	.05	.50	500	100	1,000	2.0	10	50	20
GR353S	743,560	384,568	3.0	.20	<.05	.50	500	100	200	1.0	<5	50	20
GR355S	743,820	384,515	3.0	.50	<.05	.50	300	150	300	1.5	15	50	30
GR357S	743,995	384,436	5.0	.50	<.05	.50	500	200	300	1.5	20	50	20
GR370S	748,080	384,819	5.0	.50	<.05	.50	300	100	300	1.5	10	50	20
GR062S	739,980	384,981	2.0	.30	<.05	1.00	200	200	150	1.5	5	50	30
GR063S	740,030	385,012	5.0	1.00	.05	1.00	300	200	500	2.0	20	100	30
GR067S	745,095	384,730	1.5	.20	<.05	.30	150	100	150	1.0	N	30	10
GR069S	744,970	384,718	3.0	.30	<.05	.70	200	150	200	1.5	N	50	20
GR071S	744,365	384,750	2.0	.20	<.05	.50	300	150	200	2.0	<5	50	30

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR300S	50	<20	20	30	10	100	30	500	55	2.90
GR302S	70	20	20	30	10	100	50	700	80	2.50
GR303S	70	<20	10	30	10	100	50	700	25	3.30
GR304S	100	20	30	30	10	100	50	500	75	3.50
GR305S	100	20	30	20	10	100	50	700	60	3.00
GR306S	70	<20	50	30	10	100	50	500	70	2.50
GR309S	70	<20	50	30	10	100	70	300	80	2.20
GR310S	100	20	50	30	10	100	50	500	65	2.70
GR311S	100	20	20	30	10	70	50	200	35	1.90
GR312S	50	<20	20	30	7	70	10	200	15	3.60
GR313S	100	20	30	30	10	100	70	500	50	3.50
GR314S	100	<20	30	30	15	100	30	300	80	5.50
GR315S	100	20	20	50	15	100	50	200	30	3.00
GR316S	50	<20	15	30	10	70	30	500	70	2.30
GR317S	50	20	20	150	10	100	50	500	20	1.90
GR318S	50	20	15	20	10	100	30	700	35	1.90
GR320S	50	20	20	100	10	100	30	700	40	2.00
GR321S	50	<20	20	20	10	100	20	500	45	4.30
GR325S	50	<20	15	30	7	50	20	300	55	2.60
GR327S	50	30	20	20	10	70	15	500	20	2.00
GR328S	50	<20	30	20	10	100	30	200	95	4.70
GR330S	70	20	20	20	10	70	50	500	55	2.00
GR331S	50	<20	20	30	10	100	50	500	70	4.10
GR332S	50	<20	20	30	10	100	30	500	65	2.10
GR334S	50	<20	15	20	7	50	20	>1,000	25	2.20
GR335S	70	<20	20	50	15	100	50	700	90	3.00
GR336S	70	<20	15	20	10	100	50	1,000	60	2.00
GR337S	100	20	30	30	15	100	50	300	70	1.50
GR339S	100	<20	20	30	10	50	70	500	85	3.70
GR342S	70	<20	15	20	10	70	50	500	55	2.90
GR344S	50	<20	20	30	10	70	50	300	65	1.90
GR345S	70	<20	20	30	10	70	50	200	80	2.30
GR347S	100	<20	20	30	10	100	50	1,000	85	2.70
GR349S	100	<20	20	30	10	70	70	700	85	2.20
GR350S	100	<20	15	20	10	70	50	500	45	3.30
GR351S	100	<20	15	20	10	100	30	700	95	3.60
GR353S	50	<20	7	20	5	50	15	200	25	2.10
GR355S	100	<20	15	30	10	50	20	500	65	1.40
GR357S	100	<20	20	30	10	70	30	1,000	60	2.90
GR370S	70	N	20	30	10	50	30	700	80	2.60
GR062S	100	20	20	20	10	100	20	1,000	55	1.50
GR063S	70	20	30	20	15	100	50	500	80	2.30
GR067S	N	<20	5	15	5	70	30	500	30	2.20
GR069S	100	<20	15	20	10	70	30	300	25	1.20
GR071S	100	20	15	30	7	70	50	500	55	1.30

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s
GR072S	743,960	384,762	5.0	.70	<.05	.70	300	150	500	2.0	10	70	30
GR075S	744,760	384,704	5.0	.70	<.05	.70	500	100	200	1.5	20	50	30
GR079S	746,290	384,650	3.0	.30	<.05	.50	300	200	200	1.0	<5	50	15
GR081S	738,160	384,622	3.0	.50	<.05	.70	700	50	300	1.5	10	50	20
GR082S	738,770	384,634	5.0	.70	<.05	.50	500	100	500	1.5	15	50	15
GR084S	738,960	384,669	2.0	.50	<.05	.50	300	100	300	2.0	5	50	15
GR086S	738,840	384,708	2.0	.50	<.05	.70	700	200	300	2.0	20	50	20
GR087S	739,105	384,745	5.0	.50	<.05	.30	500	50	300	2.0	5	30	15
GR088S	739,400	384,782	1.0	.50	<.05	1.00	500	150	300	1.5	5	50	20
GR089S	743,310	384,639	1.5	.20	<.05	.30	1,000	100	300	1.5	N	70	15
GR091S	742,960	384,614	2.0	.70	.05	.30	700	150	300	2.0	15	70	30
GR092S	742,470	384,600	3.0	.70	.05	.30	2,000	150	300	3.0	15	70	30
GR094S	742,150	384,618	2.0	.50	<.05	.50	300	100	300	1.5	10	50	15
GR096S	741,700	384,643	3.0	.70	<.05	.50	300	150	500	2.0	20	70	20
GR097S	741,620	384,318	5.0	1.00	<.05	.70	500	200	500	1.5	15	50	20
GR098S	741,360	384,337	5.0	1.00	.05	.70	1,000	200	700	2.0	20	50	30
GR099S	741,000	384,316	5.0	1.00	.05	.70	500	200	500	2.0	20	70	20
GR702S	741,040	384,281	5.0	1.00	.30	.70	1,000	150	300	2.0	20	100	30
GR705S	741,840	384,194	5.0	1.00	<.05	.50	500	100	300	2.0	20	100	30
GR707S	740,070	384,307	5.0	1.00	<.05	.70	700	150	300	2.0	20	100	30
GR708S	740,520	384,322	3.0	1.00	.05	.70	1,000	100	500	1.5	10	70	20
GR710S	740,820	384,297	5.0	1.00	.05	.70	500	200	500	2.0	10	100	30
GR711S	741,000	384,240	3.0	.50	<.05	.70	500	100	500	2.0	7	70	20
GR716S	740,110	384,236	5.0	.50	<.05	.70	200	100	500	2.0	7	70	30
GR717S	740,180	384,166	5.0	.70	<.05	.50	300	100	500	2.0	7	70	30
GR718S	740,520	384,170	5.0	.50	<.05	.50	200	150	300	2.0	5	70	30
GR719S	741,030	384,159	3.0	.70	<.05	.30	300	150	500	2.0	10	50	20
GR721S	746,330	384,502	2.0	.30	<.05	.70	200	100	500	1.0	<5	50	10
GR723S	745,820	384,525	7.0	1.00	<.05	.70	300	200	500	2.0	20	100	50
GR725S	745,500	384,557	5.0	.20	<.05	.50	300	150	200	1.5	5	50	30
GR726S	745,380	384,502	3.0	.70	<.05	.50	300	200	300	1.5	7	50	30
GR727S	745,500	384,470	5.0	.70	<.05	.50	200	200	500	2.0	7	100	30
GR731S	744,680	384,868	5.0	.70	.07	.50	500	100	500	1.5	7	70	20
GR732S	744,480	384,886	2.0	.20	<.05	1.00	300	100	300	1.5	<5	50	20
GR735S	744,120	384,974	5.0	.70	<.05	1.00	200	300	500	2.0	20	100	50
GR736S	744,650	384,990	5.0	.70	<.05	1.00	500	200	500	2.0	15	100	50
GR737S	740,580	384,867	5.0	.70	.05	.70	500	200	500	2.0	5	70	50
GR740S	740,420	384,431	5.0	.70	<.05	.70	1,500	200	500	2.0	7	50	30
GR743S	743,340	384,451	3.0	.30	<.05	.50	300	150	500	2.0	<5	50	20

Sample	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	V-ppm s	Y-ppm s	Zr-ppm s	Zn-ppm aa	U-INST
GR072S	100	20	20	30	10	70	50	500	80	1.50
GR075S	100	<20	30	10	10	70	50	500	90	1.60
GR079S	20	<20	5	20	5	50	30	500	40	1.90
GR081S	30	<20	15	30	5	70	50	500	70	1.00
GR082S	50	<20	15	15	15	70	50	700	70	1.80
GR084S	50	<20	10	20	10	70	20	700	55	.95
GR086S	100	N	20	20	15	70	50	500	65	1.50
GR087S	100	N	15	10	7	50	50	300	80	1.80
GR088S	100	<20	15	20	10	70	100	1,000	55	1.30
GR089S	50	N	10	15	7	70	20	150	90	1.30
GR091S	50	<20	20	20	10	70	30	500	95	1.50
GR092S	100	N	30	30	10	50	70	150	90	1.30
GR094S	50	N	15	20	10	50	50	700	60	2.10
GR096S	70	<20	30	30	10	70	50	500	95	1.50
GR097S	100	20	20	20	15	100	50	500	60	1.30
GR098S	100	<20	30	20	10	70	50	500	90	2.20
GR099S	100	<20	20	20	15	100	50	200	90	1.40
GR702S	100	N	20	20	10	100	50	200	80	1.60
GR705S	70	N	30	50	10	100	50	700	90	1.20
GR707S	100	<20	30	30	10	100	70	500	80	.95
GR708S	100	<20	20	20	10	100	50	700	60	1.30
GR710S	100	<20	30	50	10	100	50	500	70	1.40
GR711S	100	N	20	30	10	100	30	700	50	1.30
GR716S	100	N	20	50	10	100	30	300	50	1.50
GR717S	100	N	30	50	10	100	30	500	65	2.50
GR718S	50	N	30	50	10	100	20	300	40	4.10
GR719S	50	N	20	30	5	100	30	500	60	3.70
GR721S	100	<20	15	20	7	100	15	>1,000	20	2.50
GR723S	150	<20	50	50	15	100	70	200	120	3.40
GR725S	100	<20	30	30	10	70	30	500	35	1.60
GR726S	100	<20	20	50	10	70	20	500	75	1.00
GR727S	100	<20	30	50	15	100	50	200	80	2.30
GR731S	100	<20	15	50	10	100	30	500	55	1.20
GR732S	70	<20	15	30	7	100	30	1,000	25	1.00
GR735S	150	20	30	50	15	150	30	200	20	.95
GR736S	150	20	30	50	15	100	100	300	85	1.40
GR737S	70	<20	20	70	10	100	50	200	85	.85
GR740S	100	N	30	50	10	100	70	300	75	.85
GR743S	70	<20	15	50	7	100	30	>1,000	40	.45