UNITES STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

# CHEMICAL ANALYSES AND STATISTICAL SUMMARY FOR SAMPLES OF MINUS-200-MESH STREAM-SEDIMENT, MAGNETIC, AND NONMAGNETIC HEAVY-MINERAL CONCENTRATES FROM THE LATIR PEAK AND WHEELER PEAK WILDERNESSES AND THE COLUMBINE-HONDO WILDERNESS STUDY AREA, TAOS COUNTY, NEW MEXICO

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Open-File Report 83-360

1983

## 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 resource potential. 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 Latir Peak Wilderness, the Wheeler Peak Wilderness, and the Columbine-Hondo Wilderness Study Area, all in the Carson National Forest, Taos County, New Mexico. The Latir Peak Wilderness was established by Public Law 96-550, December 19, 1980. The Wheeler Peak Wilderness was originally established by Public Law 88-577, September 3, 1964; the present boundary, incorporating additional area, was established by Public Law 96-550, 1980. The Columbine-Hondo Wilderness Study Area (Public Law 96-550), was earlier classified as a further planning area by the U.S. Forest Service Roadless Area Review and Evaluation (RARE II), 1979.

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## INTRODUCTION

This report includes a tabulation of the lower limits of determination used in the analytical methods (Table 1), a tabulation of chemical analyses for samples of minus 200-mesh stream sediment (Table 2), magnetic heavy-mineral concentrate (Table 3), non-magnetic heavy-mineral concentrate (Table 4), and cumulative frequency diagrams for the elements listed in Tables 2-4 (Figures 1-3). The locations of the sites sampled are shown on a map which is part of U.S. Geological Survey Miscellaneous Field Investigation Map MF- B (Ludington and others, 1982).

## SAMPLE COLLECTION AND PREPARATION

In this study, bulk stream-sediment samples were collected at 63 localities, 12 from drainages wholly or partly within the Latir Peak Wilderness, 17 from the Wheeler Peak Wilderness, and 34 from the Columbine-Hondo Wilderness Study Area. Sampling sites are shown on sheet 1 of Ludington and others (1982). At all localities, two independent samples were taken; at a few localities, four independent samples were taken.

These bulk samples were processed into three fractions: a fine (minus 200-mesh) stream sediment fraction, and magnetic and nonmagnetic heavy-mineral concentrate fractions from stream sediment. Results are presented here for 135 fine fraction samples, 140 magnetic heavy-mineral fraction samples, and 144 nonmagnetic heavy-mineral fraction samples.

Each initial sample consisted of approximately one kilogram of active stream sediment, sieved wet to pass an 18-mesh stainless steel screen. Active sediment is sediment deposited seasonally, collected usually from under running water from several randomly chosen areas along a length of stream from a few meters to a few tens of meters in length.

The fine fraction was obtained by drying the samples and passing them through a 200-mesh screen. The coarse fraction from this step was further processed as described below. The fine fraction, thought to be most useful in the study of the dispersion of metals that are moderately soluble in stream water, and which are then adsorbed on tiny clay mineral and mica particles, is that portion of the bulk sample which passed through the 200-mesh screen.

A heavy-mineral fraction was obtained by passing the coarse fraction from the step outlined above over a Wilfley table in order to concentrate the heavier minerals, in general those with densities >3.0. The lighter material was discarded. The heavy-mineral fraction was then further split with a hand magnet into a magnetic and a nonmagnetic fraction.

The selective concentration of minerals permits determination of some elements that are not easily detected in stream-sediment samples. The analytical composition of a concentrate may also indicate specific minerals. For example, the barium content of a stream-sediment sample is predominantly the sum of barium in the mineral barite, plus the barium substituted in feldspars, clays, and possibly other minerals, whereas the barium in a nonmagnetic concentrate sample is essentially all in barite.

The magnetic fraction of a heavy-mineral concentrate sample contains the Ferro-magnesian silicate minerals (amphibole, magnetite, pyroxene, olivines, biotites, etc.) that contain small amounts of elements such as Zn, W, Cu, Cr, Ni, and others in their lattice structure. Unlike the nonmagnetic fraction, the content of these elements are related more to the geology of the rock structures in the area than to ore mineralization.

## ANALYTICAL PROCEDURES

All three fractions of bulk stream-sediment samples were analyzed for 31 elements (Ag, As, Au, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, La, Mg, Mn, Mo, Nb, Ni, Pb, Sb, Sc, Sn, Sr, Th, Ti, V, W, Y, Zn, and Zr) using a six-step semi-quantitative emission spectrographic method (Grimes and Marranzino, 1968). Analysis was done in U.S. Geological Survey labortories in Golden, Colorado.

The spectrographic analytical values are reported as the approxiamte geometric midpoints (0.15, 0.2, 0.3, 0.5, 0.7, and 1.0, or appropriate powers of 10 of these values) of concentration ranges whose respective boundaries are 0.12, 0.18, 0.26, 0.38, 0.56, and 0.83 (or appropriate powers of 10 of these values). In general, the precision of the spectrographic method is ± two reporting intervals of the value given by the analyst approximately 96% of the time (Motooka and Grimes, 1976). Because all the samples for this report were analyzed by the same analyst, using the same spectrographic instrument, our experience indicates that better precision can be expected. Table 1 shows the lower limits of detection for all elements analyzed.

Each spectrographic film includes analytical spectra for up to 22 field samples and one reference standard sample. The reference standard sample is included to monitor the quality of the analyses from film to film. The analyses for these reference samples have been omitted from Tables 2-4.

Table 1.--Lower limits of analytical determination for emission spectrographic analyses

| Element | Limit of determination | Element | Limit of determination |
|---|---|---|---|
| Fe | 0.05 | Cu | 5 |
| Mg | 0.02 | La | 20 |
| Ca | 0.05 | Mo | 5 |
| Ti | 0.002 | Nb | 20 |
| Mn | 10 | Ni | 5 |
| Ag | 0.5 | Pb | 10 |
| As | 200 | Sb | 100 |
| Au | 10 | Sc | 5 |
| B | 10 | Sn | 10 |
| Ba | 20 | Sr | 100 |
| Be | 1 | V | 10 |
| Bi | 10 | W | 50 |
| Cd | 20 | Y | 10 |
| Co | 5 | Zn | 200 |
| Cr | 10 | Zr | 10 |
| | | Th | 100 |

The values listed for Fe, Mg, Ca, and Ti are in percent; all others are in parts per million.

## GEOCHEMICAL DATA

Tables 2-4 list the chemical analyses for the three sets of samples from the bulk stream sediment; fine (minus 200-mesh) fraction (Table 2), magnetic (Table 3), and nonmagnetic heavy-mineral concentrates (Table 4).

The data are arranged so that column 1 contains the USGS-assigned sample number. The last character of this number is F, M, or N, which corresponds to fine, magnetic heavy mineral, and nonmagnetic heavy mineral, respectively. These numbers correspond to the sample site identification numbers in MF- B. Columns 2 and 3 list the latitude (north) and longitude (west) for the sample sites. All element concentrations are given in parts per million (ppm) except those for Fe, Mg, Ca, and Ti, which are given in percent.

If a given element was looked for on the spectrographic film, but not detected in a sample, the letter "N" is entered in the tables in place of analytical value. If an element was detected, but was below the lowest reporting value, a "<" (less than) was entered in the tables in front of the lower limit of determination. If an element was observed but was above the highest reporting interval, a ">" (greater than) was entered in the tables in front of the upper limit of determination.

Because of the formatting used in the computer program which produced the tables, some of the elements listed (Mg, Ca, Ti, Ag, and Be) carry one or more nonsignificant zeros to the right of the significant digits. The analyst did not determine these elements to the accuracy suggested by the extra zeros.

The elements As, Au, Cd, Sb, Th, and W were not detected in any of the fine fraction samples; consequently these elements were deleted from Table 2. Likewise, the elements As, Au, Bi, Cd, Sb, Th, and W were deleted from the magnetic heavy-mineral concentrate data set (Table 3) and As, Au, Cd, and Sb were deleted from the nonmagnetic heavy-mineral concentrate data set (Table 4) for the same reason.

## CUMULATIVE FREQUENCY DIAGRAMS

Figures 1 (a, b) (fine fraction), 2 (a, b) (magnetic heavy-mineral fraction), and 3 (a, b) (nonmagnetic heavy-mineral fraction) provide a graphic summary of the results presented in Tables 2, 3, and 4. Calculations for construction of the diagrams were made using program A470, GEOCHEMICAL SUMMARY, written by George VanTrump, Jr., of the U.S. Geological Survey.

Table 2. GEOCHEMICAL DATA FOR FINE FRACTION OF STREAM SEDIMENT SAMPLES

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q001AF | 36.573 | -105.518 | 5 | 1.0 | .70 | .5 | 700 | 1.0 | 15 | 700 |
| 80Q001BF | 36.570 | -105.518 | 5 | 1.0 | .70 | .5 | 700 | .7 | 15 | 700 |
| 80Q002AF | 36.698 | -105.550 | 5 | 1.0 | 1.00 | .5 | 1,000 | 1.5 | 20 | 1,000 |
| 80Q002BF | 36.698 | -105.550 | 3 | 1.0 | 1.00 | .5 | 1,500 | 2.0 | 20 | 700 |
| 80Q003AF | 36.579 | -105.384 | 5 | 1.0 | .30 | .5 | 700 | .7 | 50 | 700 |
| 80Q003BF | 36.579 | -105.384 | 10 | 2.0 | .70 | .7 | 1,000 | 1.0 | 50 | 700 |
| 80Q004AF | 36.578 | -105.383 | 3 | 1.5 | .50 | .3 | 1,000 | 1.0 | 30 | 700 |
| 80Q004BF | 36.578 | -105.383 | 7 | 1.0 | .70 | .7 | 1,000 | 1.0 | 20 | 700 |
| 80Q005AF | 36.576 | -105.508 | 3 | .7 | .50 | .3 | 500 | 1.0 | 15 | 500 |
| 80Q005BF | 36.576 | -105.507 | 7 | 1.0 | 1.00 | .5 | 700 | .7 | 15 | 1,000 |
| 80Q006AF | 36.585 | -105.497 | 7 | 1.0 | 1.00 | .7 | 1,000 | 1.0 | 15 | 1,000 |
| 80Q006BF | 36.585 | -105.488 | 10 | 1.0 | .70 | .7 | 1,000 | 1.0 | 10 | 1,500 |
| 80Q007AF | 36.596 | -105.448 | 10 | 2.0 | 1.00 | .7 | 1,000 | .5 | 30 | 1,000 |
| 80Q008AF | 36.769 | -105.468 | 5 | 1.0 | 1.50 | .5 | 700 | .7 | 20 | 1,000 |
| 80Q008BF | 36.769 | -105.468 | 10 | 2.0 | 2.00 | .7 | 1,500 | .5 | 20 | 1,500 |
| 80Q009AF | 36.769 | -105.467 | 10 | 2.0 | 1.50 | .7 | 1,000 | .5 | 20 | 1,000 |
| 80Q009BF | 36.769 | -105.467 | 7 | 2.0 | 1.50 | .7 | 1,500 | .5 | 20 | 1,000 |
| 80Q010AF | 36.671 | -105.581 | 5 | .7 | .50 | .7 | 1,500 | .7 | 20 | 1,000 |
| 80Q010BF | 36.671 | -105.581 | 2 | .5 | .20 | .3 | 1,500 | .7 | 20 | 700 |
| 80Q011AF | 36.768 | -105.345 | 5 | 1.0 | .50 | .5 | 1,500 | <.5 | 20 | 1,500 |
| 80Q011BF | 36.768 | -105.345 | 5 | 1.5 | .70 | .7 | 1,000 | .5 | 20 | 1,500 |
| 80Q012BF | 36.766 | -105.348 | 7 | 1.5 | .70 | .5 | 1,000 | <.5 | 15 | 2,000 |
| 80Q013AF | 36.778 | -105.371 | 7 | 1.0 | .70 | .7 | 1,500 | N | 30 | 1,500 |
| 80Q013BF | 36.778 | -105.371 | 3 | 1.0 | .70 | .5 | 2,000 | .5 | 20 | 1,000 |
| 80Q014AF | 36.762 | -105.425 | 7 | 1.5 | .70 | .5 | 1,000 | .5 | 20 | 1,000 |
| 80Q014BF | 36.762 | -105.425 | 5 | 1.5 | 1.00 | .5 | 1,000 | .7 | 20 | 1,000 |
| 80Q015AF | 36.777 | -105.417 | 5 | .7 | .70 | .5 | 700 | .7 | 50 | 700 |
| 80Q016AF | 36.737 | -105.456 | 3 | .7 | .70 | .5 | 1,500 | 1.0 | 30 | 1,000 |
| 80Q016BF | 36.737 | -105.456 | 2 | .7 | .50 | .3 | 700 | 1.0 | 20 | 700 |
| 80Q017BF | 36.711 | -105.390 | 5 | .7 | .20 | .5 | 1,000 | 2.0 | 10 | 2,000 |
| 80Q018AF | 36.637 | -105.373 | 5 | 1.0 | .70 | .7 | 1,000 | 1.5 | 20 | 1,500 |
| 80Q018BF | 36.638 | -105.373 | 3 | .7 | .70 | .5 | 1,000 | .7 | 20 | 2,000 |
| 80Q019AF | 36.637 | -105.374 | 7 | 1.0 | 1.00 | .5 | 1,000 | N | 20 | 1,000 |
| 80Q019BF | 36.637 | -105.374 | 5 | 1.0 | 1.00 | .5 | 1,000 | <.5 | 20 | 1,000 |
| 80Q020AF | 36.599 | -105.385 | 10 | 1.5 | 1.00 | .7 | 1,000 | .7 | 30 | 700 |
| 80Q020BF | 36.600 | -105.384 | 2 | 1.0 | .50 | .5 | 700 | .5 | 20 | 500 |
| 80Q021AF | 36.610 | -105.410 | 15 | 2.0 | 1.50 | .7 | 1,500 | .5 | 20 | 1,000 |
| 80Q021HF | 36.610 | -105.410 | 10 | 2.0 | 1.00 | .5 | 1,500 | .5 | 20 | 700 |
| 80Q022AF | 36.611 | -105.406 | 5 | 1.5 | .50 | .5 | 1,000 | N | 70 | 500 |
| 80Q022BF | 36.611 | -105.406 | 10 | 1.5 | .70 | .5 | 1,000 | .5 | 70 | 1,000 |
| 80Q023AF | 36.637 | -105.386 | 7 | 1.0 | 1.00 | .7 | 700 | <.5 | 20 | 1,500 |
| 80Q023BF | 36.637 | -105.386 | 3 | .7 | .70 | .3 | 700 | .5 | 20 | 1,000 |
| 80Q024AF | 36.596 | -105.581 | 10 | 1.5 | 1.00 | .7 | 1,000 | .5 | 20 | 1,500 |
| 80Q024BF | 36.596 | -105.581 | 5 | 1.0 | .15 | .5 | 700 | <.5 | 30 | 300 |
| 80Q025BF | 36.647 | -105.383 | 5 | 1.0 | 1.00 | .5 | 1,000 | N | 15 | 1,000 |

Table 2 (cont).

| Sample | be | bi | co | cr | cu | la | mo | nb | ni |
|---|---|---|---|---|---|---|---|---|---|
| 80Q001AF | 1.0 | N | 15 | 100 | 150 | 100 | 30 | 20 | 20 |
| 80Q001BF | 1.5 | N | 15 | 150 | 150 | 100 | 10 | 20 | 100 |
| 80Q002AF | 5.0 | 10 | 10 | 100 | 100 | 70 | 300 | 30 | 20 |
| 80Q002DF | 5.0 | <10 | 15 | 70 | 100 | 100 | 200 | 30 | 20 |
| 80Q003AF | 1.0 | N | 20 | 150 | 50 | 50 | 7 | <20 | 50 |
| 80Q003BF | 1.0 | N | 30 | 100 | 50 | 70 | 7 | 20 | 30 |
| 80Q004AF | 1.5 | N | 15 | 30 | 30 | 50 | <5 | 20 | 30 |
| 80Q004BF | 1.0 | N | 15 | 100 | 50 | 100 | <5 | 20 | 20 |
| 80Q005AF | 1.0 | N | 10 | 70 | 50 | 70 | 10 | <20 | 20 |
| 80Q005BF | 1.0 | N | 20 | 100 | 50 | 70 | 10 | 20 | 30 |
| 80Q006AF | 1.0 | N | 20 | 200 | 150 | 100 | 10 | <20 | 150 |
| 80Q006BF | 1.0 | N | 20 | 100 | 20 | 100 | 5 | 20 | 50 |
| 80Q007AF | 1.0 | N | 30 | 100 | 500 | 50 | N | 20 | 30 |
| 80Q008AF | 1.0 | N | 20 | 200 | 50 | 70 | N | <20 | 50 |
| 80Q008BF | 1.0 | N | 20 | 300 | 50 | 100 | 7 | <20 | 70 |
| 80Q009AF | 1.0 | N | 30 | 500 | 70 | 100 | 5 | 20 | 70 |
| 80Q009BF | 1.0 | N | 30 | 500 | 50 | 100 | N | <20 | 50 |
| 80Q010AF | 1.0 | N | 15 | 70 | 20 | 100 | 20 | 30 | 20 |
| 80Q010BF | 2.0 | N | 15 | 20 | 20 | 70 | 5 | 20 | 20 |
| 80Q011AF | 1.5 | N | 20 | 70 | 20 | 70 | <5 | <20 | 50 |
| 80Q011BF | 1.0 | N | 20 | 100 | 30 | 100 | <5 | <20 | 30 |
| 80Q012BF | 1.0 | N | 20 | 150 | 20 | 100 | 5 | 20 | 50 |
| 80Q013AF | 1.5 | N | 20 | 100 | 30 | 100 | 5 | <20 | 50 |
| 80Q013BF | 1.0 | N | 20 | 200 | 50 | 100 | <5 | <20 | 50 |
| 80Q014AF | 1.0 | N | 20 | 150 | 30 | 100 | 7 | <20 | 70 |
| 80Q014BF | 1.5 | N | 20 | 150 | 30 | 150 | 5 | 20 | 30 |
| 80Q015AF | 1.0 | N | 15 | 100 | 30 | 200 | 5 | <20 | 30 |
| 80Q016AF | 2.0 | N | 20 | 70 | 30 | 70 | 15 | <20 | 30 |
| 80Q016BF | 1.5 | N | 15 | 70 | 20 | 100 | 7 | <20 | 30 |
| 80Q017BF | 2.0 | N | 20 | 50 | 30 | 70 | 5 | <20 | 20 |
| 80Q018AF | 1.5 | N | 20 | 50 | 50 | 100 | 7 | 20 | 20 |
| 80Q018BF | 1.0 | N | 20 | 100 | 30 | 150 | 7 | 20 | 30 |
| 80Q019AF | 2.0 | N | 15 | 100 | 50 | 100 | <5 | <20 | 20 |
| 80Q019BF | 1.5 | N | 20 | 70 | 20 | 150 | 7 | 20 | 20 |
| 80Q020AF | 1.5 | N | 20 | 150 | 70 | 70 | <5 | <20 | 30 |
| 80Q020BF | 1.0 | N | 15 | 70 | 20 | 70 | N | <20 | 20 |
| 80Q021AF | <1.0 | N | 20 | 100 | 150 | 50 | 5 | <20 | 50 |
| 80Q021BF | <1.0 | N | 30 | 150 | 150 | 70 | <5 | <20 | 50 |
| 80Q022AF | 1.0 | N | 20 | 100 | 50 | 30 | N | <20 | 50 |
| 80Q022BF | 1.0 | N | 20 | 100 | 50 | 50 | <5 | <20 | 50 |
| 80Q023AF | 1.5 | N | 15 | 150 | 50 | 70 | 5 | 20 | 30 |
| 80Q023BF | 3.0 | N | 15 | 100 | 20 | 50 | <5 | <20 | 30 |
| 80Q024AF | 1.0 | N | 20 | 150 | 30 | 70 | 5 | <20 | 50 |
| 80Q024BF | 2.0 | N | 10 | 20 | 15 | 50 | 5 | <20 | 30 |
| 80Q025BF | <1.0 | N | 20 | 70 | 20 | 70 | <5 | <20 | 30 |

Table 2 (cont).

| Sample | pb | sc | sn | sr | v | y | zn | zr |
|---|---|---|---|---|---|---|---|---|
| 80Q001AF | 100 | 15 | 100 | 200 | 100 | 20 | N | 500 |
| 80Q001BF | 100 | 15 | 100 | 200 | 100 | 30 | <200 | 1,000 |
| 80Q002AF | 500 | 15 | 20 | 200 | 100 | 30 | 200 | 500 |
| 80Q002BF | 200 | 15 | 15 | 200 | 70 | 30 | <200 | 500 |
| 80Q003AF | 50 | 30 | 10 | 200 | 100 | 50 | N | 500 |
| 80Q003BF | 50 | 30 | 20 | 100 | 150 | 50 | N | 700 |
| 80Q004AF | 70 | 15 | 50 | 100 | 70 | 30 | <200 | 200 |
| 80Q004BF | 70 | 15 | 20 | 200 | 100 | 50 | N | 500 |
| 80Q005AF | 150 | 10 | 20 | 200 | 70 | 20 | <200 | 300 |
| 80Q005BF | 200 | 15 | 30 | 200 | 100 | 30 | 200 | 1,000 |
| 80Q006AF | 150 | 20 | 200 | 200 | 100 | 30 | <200 | 700 |
| 80Q006BF | 100 | 10 | 10 | 200 | 150 | 30 | N | >1,000 |
| 80Q007AF | 50 | 20 | 70 | 150 | 100 | 50 | N | 300 |
| 80Q008AF | 70 | 20 | 20 | 700 | 100 | 30 | N | 200 |
| 80Q008BF | 70 | 20 | 50 | 700 | 150 | 50 | N | 500 |
| 80Q009AF | 50 | 20 | 70 | 500 | 150 | 30 | N | 500 |
| 80Q009BF | 50 | 20 | 30 | 500 | 150 | 30 | N | 200 |
| 80Q010AF | 150 | 10 | 15 | 200 | 70 | 50 | N | 500 |
| 80Q010BF | 100 | 10 | 10 | 200 | 50 | 30 | N | 300 |
| 80Q011AF | 30 | 15 | 10 | 500 | 100 | 30 | N | 500 |
| 80Q011BF | 50 | 20 | 30 | 300 | 100 | 30 | N | 500 |
| 80Q012BF | 50 | 15 | 20 | 500 | 100 | 50 | N | 300 |
| 80Q013AF | 30 | 15 | 15 | 300 | 100 | 30 | N | 500 |
| 80Q013BF | 70 | 20 | 30 | 500 | 100 | 30 | N | 200 |
| 80Q014AF | 100 | 15 | 100 | 300 | 100 | 70 | N | 300 |
| 80Q014BF | 70 | 15 | 20 | 300 | 100 | 50 | N | 700 |
| 80Q015AF | 70 | 15 | 10 | 300 | 100 | 70 | N | 700 |
| 80Q016AF | 100 | 15 | 10 | 300 | 100 | 30 | N | 200 |
| 80Q016BF | 70 | 10 | 20 | 300 | 70 | 20 | N | 200 |
| 80Q017BF | 70 | 15 | 10 | 200 | 70 | 20 | N | 300 |
| 80Q018AF | 150 | 20 | 20 | 500 | 100 | 70 | N | 300 |
| 80Q018BF | 100 | 15 | 50 | 300 | 100 | 50 | N | 200 |
| 80Q019AF | 30 | 20 | N | 500 | 100 | 100 | N | 300 |
| 80Q019BF | 50 | 20 | 20 | 500 | 100 | 100 | N | 300 |
| 80Q020AF | 50 | 20 | 50 | 200 | 100 | 50 | N | 300 |
| 80Q020BF | 30 | 15 | 15 | 150 | 70 | 30 | N | 200 |
| 80Q021AF | 50 | 30 | 10 | 300 | 150 | 30 | N | 200 |
| 80Q021BF | 70 | 30 | 20 | 200 | 150 | 30 | <200 | 150 |
| 80Q022AF | 30 | 20 | N | 150 | 100 | 20 | N | 150 |
| 80Q022BF | 50 | 20 | 20 | 200 | 100 | 20 | N | 200 |
| 80Q023AF | 50 | 10 | 15 | 500 | 150 | 30 | N | 1,000 |
| 80Q023BF | 50 | 10 | 15 | 500 | 100 | 30 | N | 200 |
| 80Q024AF | 30 | 20 | 10 | 500 | 100 | 30 | N | 500 |
| 80Q024BF | 100 | 10 | 20 | <100 | 70 | 50 | N | 500 |
| 80Q025BF | 30 | 20 | 10 | 500 | 100 | 20 | N | 200 |

Table 2 (cont).

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q026AF | 36.679 | -105.380 | 5 | 1.5 | 1.00 | .7 | 1,000 | .5 | 20 | 1,500 |
| 80Q026BF | 36.679 | -105.380 | 10 | 1.5 | 1.00 | .7 | 700 | 1.5 | 20 | 1,000 |
| 80Q027AF | 36.597 | -105.582 | 2 | .7 | .70 | .5 | 500 | .7 | 20 | 1,000 |
| 80Q027BF | 36.597 | -105.582 | 2 | .7 | .50 | .3 | 500 | 1.5 | 30 | 700 |
| 80Q028BF | 36.571 | -105.495 | 5 | 2.0 | 1.50 | .5 | 1,000 | .7 | 20 | 500 |
| 80Q029AF | 36.570 | -105.487 | 7 | 1.0 | 1.00 | .5 | 1,000 | 2.0 | 20 | 1,000 |
| 80Q029BF | 36.573 | -105.487 | 3 | 1.0 | 1.00 | .3 | 700 | 2.0 | 20 | 700 |
| 80Q030BF | 36.569 | -105.470 | 7 | 1.5 | 1.50 | .5 | 1,500 | 1.0 | 15 | 700 |
| 80Q031AF | 36.597 | -105.448 | 5 | 1.5 | 1.00 | .5 | 1,000 | <.5 | 20 | 1,000 |
| 80Q031BF | 36.597 | -105.448 | 2 | .7 | .50 | .3 | 700 | 1.0 | 30 | 1,000 |
| 80Q032BF | 36.595 | -105.469 | 3 | .7 | .70 | .5 | 1,500 | 1.5 | 30 | 1,000 |
| 80Q033AF | 36.595 | -105.464 | 7 | 1.0 | .70 | .5 | 1,500 | 3.0 | 20 | 1,000 |
| 80Q033BF | 36.595 | -105.464 | 3 | .7 | .50 | .3 | 1,000 | 1.0 | 20 | 700 |
| 80Q034BF | 36.573 | -105.510 | 5 | 1.5 | 1.00 | .3 | 1,000 | .5 | 10 | 500 |
| 80Q035AF | 36.583 | -105.449 | 3 | 1.0 | 1.00 | .5 | 700 | 1.5 | 15 | 700 |
| 80Q035BF | 36.583 | -105.449 | 3 | 1.0 | .70 | .5 | 500 | 2.0 | 20 | 700 |
| 80Q036AF | 36.646 | -105.516 | 5 | 1.5 | .70 | .3 | 1,000 | <.5 | 50 | 1,000 |
| 80Q036BF | 36.646 | -105.516 | 10 | 1.0 | 1.00 | .5 | 700 | 1.0 | 50 | 1,000 |
| 80Q037AF | 36.647 | -105.494 | 5 | 1.0 | 1.00 | .5 | 1,000 | 1.0 | 50 | 1,000 |
| 80Q037BF | 36.647 | -105.494 | 2 | .7 | .70 | .3 | 500 | .5 | 50 | 700 |
| 80Q038AF | 36.646 | -105.516 | 10 | 1.5 | 1.00 | .5 | 1,000 | 2.0 | 20 | 1,000 |
| 80Q038BF | 36.646 | -105.494 | 10 | 2.0 | 1.00 | .7 | 1,000 | 2.0 | 20 | 1,000 |
| 80Q039AF | 36.646 | -105.515 | 3 | 1.0 | 1.00 | .3 | 1,000 | .7 | 10 | 700 |
| 80Q039BF | 36.646 | -105.515 | 3 | 1.0 | 1.00 | .5 | 1,000 | 1.5 | 30 | 1,000 |
| 80Q040AF | 36.649 | -105.518 | 10 | 1.0 | 1.00 | .5 | 1,000 | .5 | 20 | 1,000 |
| 80Q040BF | 36.649 | -105.518 | 5 | 1.0 | 1.00 | .5 | 1,500 | .7 | 30 | 700 |
| 80Q041AF | 36.658 | -105.515 | 3 | 1.0 | 1.00 | .5 | 1,000 | .7 | 30 | 700 |
| 80Q041BF | 36.658 | -105.516 | 7 | 1.0 | 1.00 | .7 | 1,500 | .7 | 50 | 1,000 |
| 80Q042AF | 36.679 | -105.443 | 5 | .7 | .50 | .5 | 1,000 | .7 | 30 | 1,000 |
| 80Q042BF | 36.679 | -105.443 | 7 | 1.0 | .70 | .7 | 700 | .5 | 20 | 1,500 |
| 80Q043AF | 36.679 | -105.445 | 10 | 1.0 | .50 | .5 | 700 | 1.0 | 20 | 1,000 |
| 80Q043BF | 36.679 | -105.443 | 2 | .7 | .50 | .3 | 500 | .7 | 30 | 700 |
| 80Q044AF | 36.559 | -105.532 | 5 | 1.0 | 1.00 | .5 | 1,000 | .5 | 20 | 700 |
| 80Q044BF | 36.559 | -105.532 | 3 | 1.0 | .70 | .5 | 700 | 1.0 | 20 | 500 |
| 80Q045AF | 36.696 | -105.576 | 7 | 1.0 | .50 | .7 | 1,000 | .7 | 20 | 1,500 |
| 80Q046AF | 36.696 | -105.576 | 7 | 1.0 | .50 | .5 | 1,000 | .7 | 20 | 1,000 |
| 80Q046BF | 36.696 | -105.576 | 10 | 1.0 | .50 | .7 | 1,000 | 1.0 | 20 | 1,500 |
| 80Q047AF | 36.577 | -105.581 | 10 | 2.0 | 1.00 | .7 | 1,500 | 1.5 | 20 | 1,000 |
| 80Q047BF | 36.577 | -105.581 | 5 | 1.0 | .70 | .5 | 700 | 1.0 | 20 | 700 |
| 80Q101AF | 36.518 | -105.536 | 3 | 1.0 | .70 | .5 | 700 | N | 20 | 500 |
| 80Q101BF | 36.518 | -105.536 | 10 | 1.5 | 1.50 | .7 | 1,000 | <.5 | 20 | 700 |
| 80Q102AF | 36.539 | -105.563 | 5 | 1.5 | 1.00 | .5 | 700 | .5 | 20 | 700 |
| 80Q102BF | 36.539 | -105.536 | 10 | 2.0 | 1.50 | .7 | 1,500 | .5 | 10 | 1,000 |
| 80Q103AF | 36.594 | -105.447 | 7 | 2.0 | 1.50 | .7 | 700 | .7 | 30 | 700 |
| 80Q103BF | 36.594 | -105.447 | 10 | 1.5 | 1.50 | .7 | 1,000 | 1.0 | 30 | 1,000 |

Table 2 (cont).

| Sample | be | bi | co | cr | cu | la | mo | nb | ni |
|---|---|---|---|---|---|---|---|---|---|
| 80Q026AF | <1.0 | N | 20 | 150 | 50 | 70 | 5 | <20 | 50 |
| 80Q026BF | 1.0 | N | 20 | 150 | 70 | 100 | 5 | 20 | 50 |
| 80Q027AF | 2.0 | N | 10 | 50 | 30 | 70 | <5 | <20 | 30 |
| 80Q027BF | 1.5 | N | 10 | 50 | 50 | 100 | 5 | <20 | 20 |
| 80Q028BF | 5.0 | N | 30 | 150 | 200 | 70 | 50 | <20 | 50 |
| 80Q029AF | 1.5 | N | 20 | 70 | 50 | 150 | <5 | <20 | 50 |
| 80Q029BF | 1.0 | N | 15 | 100 | 50 | 70 | 5 | <20 | 30 |
| 80Q030BF | 3.0 | 10 | 30 | 70 | 150 | 70 | 30 | <20 | 50 |
| 80Q031AF | 1.0 | N | 20 | 50 | 20 | 100 | 5 | <20 | 50 |
| 80Q031BF | 1.0 | N | 15 | 100 | 30 | 70 | 7 | <20 | 30 |
| 80Q032BF | 1.0 | N | 20 | 100 | 30 | 100 | 7 | <20 | 30 |
| 80Q033AF | 1.0 | 15 | 20 | 100 | 150 | 70 | 5 | <20 | 20 |
| 80Q033BF | 1.0 | 20 | 15 | 50 | 70 | 30 | N | <20 | 20 |
| 80Q034BF | 1.0 | N | 20 | 150 | 50 | 70 | 15 | <20 | 30 |
| 80Q035AF | 3.0 | N | 15 | 50 | 50 | 100 | N | <20 | 30 |
| 80Q035BF | 1.5 | N | 15 | 100 | 50 | 100 | N | 20 | 30 |
| 80Q036AF | <1.0 | N | 20 | 100 | 20 | 50 | <5 | N | 30 |
| 80Q036BF | 1.0 | N | 20 | 100 | 20 | 50 | 5 | <20 | 30 |
| 80Q037AF | <1.0 | N | 15 | 70 | 20 | 50 | 5 | <20 | 30 |
| 80Q037BF | <1.0 | N | 15 | 70 | 15 | 50 | 5 | N | 20 |
| 80Q038AF | 1.5 | N | 30 | 150 | 100 | 150 | 5 | 20 | 50 |
| 80Q038BF | 1.0 | <10 | 20 | 150 | 100 | 70 | 5 | 20 | 30 |
| 80Q039AF | 1.0 | N | 10 | 50 | 20 | 30 | 5 | <20 | 20 |
| 80Q039BF | 1.0 | N | 15 | 100 | 50 | 100 | 5 | <20 | 30 |
| 80Q040AF | 1.5 | N | 20 | 100 | 70 | 150 | 7 | 30 | 20 |
| 80Q040BF | 1.5 | N | 20 | 70 | 70 | 100 | 10 | 20 | 30 |
| 80Q041AF | 1.0 | N | 15 | 150 | 30 | 50 | 5 | <20 | 50 |
| 80Q041BF | 1.5 | N | 20 | 100 | 20 | 70 | 5 | 20 | 50 |
| 80Q042AF | 1.5 | N | 15 | 50 | 15 | 50 | 5 | <20 | 20 |
| 80Q042BF | <1.0 | N | 10 | 70 | 30 | 50 | <5 | <20 | 20 |
| 80Q043AF | 1.0 | N | 15 | 20 | 30 | 50 | 5 | 20 | 20 |
| 80Q043BF | 1.0 | N | 10 | 50 | 20 | 50 | 10 | <20 | 20 |
| 80Q044AF | 2.0 | N | 15 | 70 | 70 | 150 | 7 | 20 | 30 |
| 80Q044BF | 1.0 | N | 15 | 100 | 70 | 100 | 10 | 20 | 30 |
| 80Q045AF | 2.0 | <10 | 15 | 150 | 100 | 100 | 200 | 20 | 50 |
| 80Q046AF | 1.5 | <10 | 20 | 200 | 100 | 100 | 150 | <20 | 30 |
| 80Q046BF | 3.0 | <10 | 15 | 150 | 100 | 100 | 200 | <20 | 50 |
| 80Q047AF | 1.0 | N | 20 | 200 | 200 | 70 | 15 | <20 | 70 |
| 80Q047DF | 1.0 | N | 20 | 300 | 150 | 70 | 10 | <20 | 70 |
| 80Q101AF | 1.0 | N | 20 | 100 | 30 | 50 | <5 | 20 | 20 |
| 80Q101BF | 1.5 | N | 30 | 150 | 50 | 50 | 7 | 30 | 30 |
| 80Q102AF | <1.0 | N | 30 | 200 | 150 | 50 | N | <20 | 50 |
| 80Q102BF | 1.0 | N | 30 | 100 | 100 | 50 | <5 | <20 | 70 |
| 80Q103AF | <1.0 | N | 20 | 150 | 100 | 50 | <5 | <20 | 50 |
| 80Q105BF | <1.0 | N | 30 | 150 | 100 | 50 | 5 | <20 | 70 |

Table 2 (cont).

| Sample | pb | sc | sn | sr | v | y | zn | zr |
|---|---|---|---|---|---|---|---|---|
| 80Q026AF | 50 | 20 | 15 | 300 | 150 | 50 | <200 | 700 |
| 80Q026BF | 100 | 10 | 20 | 200 | 100 | 50 | N | 1,000 |
| 80Q027AF | 30 | 10 | 10 | 200 | 70 | 50 | N | 300 |
| 80Q027BF | 50 | 15 | N | 200 | 70 | 30 | N | 200 |
| 80Q028BF | 150 | 30 | 20 | 300 | 100 | 50 | <200 | 150 |
| 80Q029AF | 100 | 20 | 10 | 200 | 100 | 70 | N | 500 |
| 80Q029BF | 70 | 20 | 30 | 200 | 70 | 50 | N | 300 |
| 80Q030BF | 100 | 20 | N | 300 | 150 | 30 | 200 | 200 |
| 80Q031AF | 70 | 15 | <10 | 200 | 100 | 70 | N | 500 |
| 80Q031BF | 100 | 20 | 15 | 200 | 70 | 70 | N | 200 |
| 80Q032BF | 100 | 20 | 10 | 200 | 100 | 70 | N | 300 |
| 80Q033AF | 70 | 20 | 15 | 200 | 100 | 50 | <200 | 500 |
| 80Q033BF | 50 | 15 | N | 150 | 70 | 30 | N | 300 |
| 80Q034BF | 100 | 30 | <10 | 300 | 100 | 20 | N | 100 |
| 80Q035AF | 100 | 10 | <10 | 300 | 100 | 50 | N | 300 |
| 80Q035BF | 150 | 15 | 10 | 500 | 100 | 20 | N | 200 |
| 80Q036AF | 30 | 20 | <10 | 200 | 100 | 30 | N | 200 |
| 80Q036BF | 70 | 20 | N | 200 | 100 | 50 | N | 300 |
| 80Q037AF | 50 | 20 | <10 | 200 | 100 | 30 | N | 200 |
| 80Q037BF | 30 | 15 | N | 200 | 100 | 20 | N | 200 |
| 80Q038AF | 100 | 20 | 10 | 200 | 150 | 50 | <200 | 1,000 |
| 80Q038BF | 150 | 20 | 20 | 150 | 150 | 50 | N | 1,000 |
| 80Q039AF | 100 | 15 | 20 | 200 | 100 | 30 | N | 500 |
| 80Q039BF | 150 | 15 | 10 | 300 | 100 | 30 | N | 500 |
| 80Q040AF | 100 | 20 | 15 | 200 | 100 | 30 | N | 1,000 |
| 80Q040BF | 150 | 20 | 15 | 200 | 100 | 50 | N | 200 |
| 80Q041AF | 100 | 20 | <10 | 300 | 70 | 30 | N | 300 |
| 80Q041BF | 70 | 20 | <10 | 300 | 100 | 50 | N | 1,000 |
| 80Q042AF | 20 | 10 | N | 200 | 70 | 50 | N | 700 |
| 80Q042BF | 70 | 15 | <10 | 200 | 100 | 50 | N | 700 |
| 80Q043AF | 50 | 15 | N | 200 | 100 | 50 | N | 500 |
| 80Q043BF | 30 | 10 | 10 | 150 | 70 | 20 | N | 200 |
| 80Q044AF | 30 | 20 | N | 200 | 100 | 70 | N | 300 |
| 80Q044BF | 70 | 15 | 15 | 200 | 100 | 50 | N | 300 |
| 80Q045AF | 70 | 15 | 10 | 500 | 100 | 20 | N | 300 |
| 80Q046AF | 100 | 20 | 10 | 500 | 150 | 30 | <200 | 300 |
| 80Q046BF | 70 | 20 | 10 | 500 | 150 | 20 | N | 300 |
| 80Q047AF | 150 | 20 | 30 | 200 | 100 | 50 | 200 | 500 |
| 80Q047BF | 100 | 20 | 50 | 200 | 100 | 30 | <200 | 200 |
| 80Q101AF | 50 | 20 | 10 | 200 | 100 | 30 | N | 200 |
| 80Q101BF | 50 | 20 | N | 300 | 100 | 50 | N | 500 |
| 80Q102AF | 50 | 30 | N | 300 | 150 | 20 | N | 150 |
| 80Q102BF | 70 | 30 | N | 300 | 150 | 50 | N | 200 |
| 80Q103AF | 100 | 30 | N | 300 | 150 | 50 | <200 | 300 |
| 80Q103BF | 100 | 30 | 10 | 200 | 150 | 30 | <200 | 500 |

Table 2 (cont).

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q104AF | 36.598 | -105.481 | 7 | 1.0 | .50 | .5 | 1,000 | 1.0 | 10 | 1,000 |
| 80Q104BF | 36.598 | -105.481 | 10 | 1.0 | 1.00 | .7 | 700 | 2.0 | 15 | 1,500 |
| 80Q105AF | 36.599 | -105.480 | 5 | 1.0 | .70 | .3 | 1,000 | .5 | 20 | 1,000 |
| 80Q105BF | 36.599 | -105.480 | 7 | 1.5 | .70 | .5 | 1,500 | 1.0 | 20 | 1,500 |
| 80Q106AF | 36.553 | -105.537 | 3 | .7 | .70 | .5 | 1,000 | <.5 | 20 | 700 |
| 80Q106BF | 36.553 | -105.537 | 7 | 1.0 | 1.00 | .7 | 1,000 | N | 20 | 700 |
| 80Q107AF | 36.812 | -105.513 | 7 | 1.5 | 2.00 | .5 | 1,000 | .5 | 20 | 700 |
| 80Q107BF | 36.812 | -105.513 | 7 | 1.0 | 2.00 | .7 | 1,000 | N | 20 | 1,000 |
| 80Q107CF | 36.812 | -105.546 | 10 | 1.5 | 1.50 | .7 | 1,000 | .5 | 20 | 700 |
| 80Q107DF | 36.812 | -105.613 | 5 | 1.0 | 1.50 | .5 | 1,000 | <.5 | 20 | 700 |
| 80Q108BF | 36.752 | -105.566 | 7 | .7 | .50 | .5 | 500 | .5 | 20 | 700 |
| 80Q109AF | 36.796 | -105.553 | 5 | 1.0 | 1.00 | .7 | 1,000 | .7 | 20 | 700 |
| 80Q109BF | 36.796 | -105.553 | 7 | 1.0 | 1.00 | .7 | 1,500 | N | 20 | 1,000 |
| 80Q110AF | 36.787 | -105.557 | 7 | 1.0 | .70 | .5 | 1,500 | .5 | 20 | 700 |
| 80Q110BF | 36.787 | -105.557 | 2 | .7 | .70 | .5 | 1,000 | .5 | 30 | 700 |
| 80Q110CF | 36.787 | -105.557 | 5 | .7 | 1.00 | .5 | 500 | .5 | 30 | 500 |
| 80Q110DF | 36.787 | -105.557 | 10 | 1.5 | 1.00 | .7 | 2,000 | .5 | 30 | 700 |
| 80Q111AF | 36.557 | -105.535 | 5 | 1.5 | 1.00 | .3 | 1,500 | .7 | 30 | 700 |
| 80Q111BF | 36.557 | -105.535 | 5 | 1.0 | 1.50 | .5 | 500 | 2.0 | 15 | 500 |
| 80Q112AF | 36.615 | -105.611 | 10 | 1.5 | 1.00 | .7 | 1,500 | .7 | 15 | 1,000 |
| 80Q112BF | 36.615 | -105.611 | 3 | .7 | .50 | .3 | 700 | .7 | 20 | 500 |
| 80Q113AF | 36.645 | -105.586 | 3 | 1.0 | .70 | .3 | 1,000 | .7 | 20 | 1,000 |
| 80Q113AF | 36.698 | -105.550 | 7 | 1.0 | 1.00 | .7 | 2,000 | <.5 | 20 | 1,500 |
| 80Q113BF | 36.595 | -105.586 | 7 | 1.0 | 1.00 | .5 | 1,000 | .5 | 30 | 1,000 |
| 80Q114AF | 36.697 | -105.482 | 7 | 1.5 | 1.00 | .7 | 2,000 | 1.5 | 20 | 1,000 |
| 80Q114DF | 36.697 | -105.482 | 1 | .5 | 1.50 | .2 | 1,000 | 1.0 | 20 | 300 |
| 80Q115AF | 36.694 | -105.496 | 5 | 2.0 | 1.50 | .5 | 1,500 | .7 | 30 | 700 |
| 80Q115BF | 36.694 | -105.496 | 5 | 2.0 | 1.50 | .3 | 1,000 | .5 | 20 | 500 |
| 80Q116AF | 36.684 | -105.508 | 3 | 1.0 | .50 | .3 | 1,000 | .7 | 30 | 700 |
| 80Q116BF | 36.684 | -105.508 | 10 | 2.0 | 1.50 | .7 | 2,000 | 2.0 | 30 | 1,000 |
| 80Q117AF | 36.685 | -105.543 | 7 | .7 | .70 | .5 | 1,000 | 1.5 | 20 | 1,000 |
| 80Q117BF | 36.685 | -105.543 | 3 | .5 | .50 | .5 | 1,000 | 5.0 | 15 | 1,000 |
| 80Q118BF | 36.698 | -105.550 | 3 | .7 | .70 | .3 | 2,000 | N | 20 | 1,000 |
| 80Q119AF | 36.772 | -105.388 | 10 | .7 | .70 | .7 | 1,000 | <.5 | 20 | 1,000 |
| 80Q119BF | 36.772 | -105.388 | 2 | .5 | .50 | .5 | 1,000 | N | 20 | 1,000 |
| 80Q120AF | 36.767 | -105.393 | 7 | 1.5 | 1.00 | .7 | 700 | <.5 | 15 | 1,500 |
| 80Q120BF | 36.767 | -105.393 | 3 | .7 | .50 | .5 | 700 | N | 10 | 1,000 |
| 80Q121AF | 36.764 | -105.407 | 3 | 1.0 | .70 | .3 | 500 | <.5 | 15 | 700 |
| 80Q121DF | 36.764 | -105.407 | 3 | 1.0 | .70 | .5 | 700 | N | 30 | 1,000 |
| 80Q122AF | 36.754 | -105.434 | 10 | 1.0 | 1.00 | .7 | 2,000 | 1.0 | 20 | 1,000 |
| 80Q122BF | 36.754 | -105.438 | 3 | .7 | .20 | .3 | 1,000 | .7 | 20 | 1,000 |
| 80Q123AF | 36.736 | -105.516 | 5 | .7 | .70 | .7 | 1,000 | .5 | 30 | 700 |
| 80Q123BF | 36.694 | -105.516 | 3 | .7 | .50 | .5 | 1,500 | .7 | 30 | 700 |
| 80Q124AF | 36.731 | -105.544 | 2 | .7 | .07 | .2 | 500 | <.5 | 20 | 200 |
| 80Q124DF | 36.731 | -105.544 | 10 | 2.0 | 1.00 | 1.0 | 700 | 1.0 | 20 | 700 |

Table 2 (cont).

| Sample | be | bi | co | cr | cu | la | mo | nb | ni |
|---|---|---|---|---|---|---|---|---|---|
| 80Q104AF | 2.0 | N | 20 | 50 | 30 | 100 | 15 | 30 | 50 |
| 80Q104BF | 1.0 | N | 20 | 100 | 50 | 100 | 10 | 20 | 30 |
| 80Q105AF | 2.0 | N | 20 | 100 | 30 | 100 | N | <20 | 30 |
| 80Q105BF | 2.0 | 20 | 20 | 100 | 50 | 100 | 5 | <20 | 30 |
| 80Q106AF | 1.0 | N | 15 | 70 | 70 | 100 | N | 20 | 30 |
| 80Q106BF | 1.5 | N | 20 | 100 | 70 | 150 | 5 | 30 | 50 |
| 80Q107AF | 1.5 | 20 | 30 | 150 | 50 | 100 | 5 | <20 | 30 |
| 80Q107BF | 1.0 | N | 20 | 100 | 30 | 70 | <5 | 20 | 50 |
| 80Q107CF | 1.5 | N | 20 | 150 | 50 | 50 | <5 | 20 | 30 |
| 80Q107DF | 1.0 | N | 30 | 150 | 50 | 100 | 10 | 20 | 70 |
| 80Q108BF | 3.0 | N | 30 | 50 | 70 | 100 | 10 | 30 | 100 |
| 80Q109AF | 2.0 | N | 20 | 100 | 30 | 150 | 5 | 20 | 50 |
| 80Q109BF | 2.0 | N | 20 | 100 | 30 | 200 | <5 | 30 | 50 |
| 80Q110AF | 2.0 | N | 15 | 70 | 20 | 100 | 7 | 50 | 30 |
| 80Q110BF | 3.0 | N | 10 | 50 | 20 | 70 | 5 | 30 | 20 |
| 80Q110CF | 3.0 | N | 15 | 70 | 30 | 150 | 10 | 50 | 70 |
| 80Q110DF | 2.0 | N | 15 | 100 | 20 | 150 | 10 | 50 | 50 |
| 80Q111AF | 3.0 | N | 20 | 100 | 70 | 150 | 7 | <20 | 30 |
| 80Q111BF | 2.0 | N | 15 | 30 | 70 | 150 | 7 | 20 | 30 |
| 80Q112AF | 1.0 | N | 20 | 150 | 70 | 50 | N | 20 | 30 |
| 80Q112BF | 1.0 | N | 20 | 150 | 20 | 70 | <5 | 20 | 30 |
| 80Q113AF | 1.5 | N | 15 | 50 | 20 | 70 | 5 | 20 | 30 |
| 80Q113AF | 1.0 | N | 20 | 150 | 30 | 100 | 5 | <20 | 50 |
| 80Q113BF | 1.0 | N | 15 | 70 | 30 | 100 | <5 | 20 | 20 |
| 80Q114AF | 3.0 | N | 30 | 100 | 100 | 100 | 200 | <20 | 70 |
| 80Q114BF | 1.5 | N | 7 | 50 | 50 | 50 | 200 | N | 10 |
| 80Q115AF | 1.5 | N | 30 | 500 | 100 | 100 | 70 | <20 | 70 |
| 80Q115BF | 1.0 | N | 30 | 500 | 50 | 50 | 50 | <20 | 70 |
| 80Q116AF | 1.0 | <10 | 20 | 150 | 100 | 70 | 20 | <20 | 30 |
| 80Q116BF | 1.5 | <10 | 20 | 150 | 150 | 70 | 200 | 20 | 50 |
| 80Q117AF | 1.5 | N | 15 | 70 | 50 | 100 | 20 | 30 | 20 |
| 80Q117BF | 2.0 | N | 15 | 50 | 20 | 70 | 20 | 30 | 15 |
| 80Q118BF | 1.0 | N | 20 | 100 | 20 | 70 | N | <20 | 30 |
| 80Q119AF | 1.0 | N | 20 | 100 | 100 | 70 | <5 | <20 | 50 |
| 80Q119BF | 1.0 | N | 15 | 100 | 15 | 50 | <5 | <20 | 20 |
| 80Q120AF | 1.0 | N | 20 | 200 | 50 | 70 | N | <20 | 50 |
| 80Q120BF | 1.5 | N | 15 | 70 | 30 | 70 | 7 | <20 | 50 |
| 80Q121AF | 1.0 | N | 20 | 200 | 30 | 100 | 5 | <20 | 50 |
| 80Q121BF | 1.0 | N | 15 | 200 | 30 | 70 | 5 | <20 | 50 |
| 80Q122AF | 2.0 | N | 50 | 100 | 150 | 100 | 15 | <20 | 100 |
| 80Q122BF | 1.0 | N | 30 | 70 | 70 | 50 | 10 | <20 | 50 |
| 80Q123AF | 1.0 | N | 15 | 50 | 20 | 150 | 5 | <20 | 50 |
| 80Q123BF | 1.0 | N | 20 | 70 | 30 | 100 | 5 | 20 | 20 |
| 80Q124AF | 1.0 | N | 7 | 50 | 10 | 50 | 5 | N | 15 |
| 80Q124BF | 1.0 | N | 30 | 200 | 70 | 100 | 5 | 20 | 50 |

Table 2 (cont).

| Sample | pb | sc | sn | sr | v | y | zn | zr |
|---|---|---|---|---|---|---|---|---|
| 80Q104AF | 200 | 10 | 10 | 200 | 100 | 30 | N | 700 |
| 80Q104BF | 200 | 15 | N | 200 | 100 | 50 | <200 | 1,000 |
| 80Q105AF | 50 | 20 | <10 | 200 | 100 | 50 | <200 | 500 |
| 80Q105BF | 70 | 20 | 15 | 200 | 100 | 50 | N | 500 |
| 80Q106AF | 70 | 15 | 10 | 200 | 70 | 15 | N | 300 |
| 80Q106BF | 70 | 20 | 10 | 300 | 150 | 50 | <200 | 700 |
| 80Q107AF | 50 | 30 | 10 | 200 | 150 | 50 | N | 300 |
| 80Q107BF | 30 | 20 | N | 300 | 100 | 50 | N | 1,000 |
| 80Q107CF | 50 | 20 | 10 | 200 | 100 | 70 | N | 1,000 |
| 80Q107DF | 50 | 30 | 10 | 300 | 150 | 70 | <200 | 1,000 |
| 80Q108BF | 70 | 15 | 10 | 150 | 70 | 70 | 300 | 500 |
| 80Q109AF | 50 | 20 | 10 | 200 | 100 | 150 | N | 1,000 |
| 80Q109BF | 50 | 20 | 20 | 300 | 100 | 99 | N | >1,000 |
| 80Q110AF | 70 | 15 | 20 | 300 | 100 | 50 | N | 700 |
| 80Q110BF | 50 | 15 | 10 | 200 | 70 | 30 | N | 700 |
| 80Q110CF | 50 | 10 | 15 | 200 | 100 | 50 | N | 700 |
| 80Q110DF | 100 | 15 | 30 | 300 | 100 | 50 | N | 700 |
| 80Q111AF | 70 | 20 | 30 | 200 | 100 | 70 | N | 300 |
| 80Q111BF | 100 | 20 | <10 | 200 | 100 | 70 | <200 | 300 |
| 80Q112AF | 70 | 15 | N | 200 | 100 | 50 | <200 | 1,000 |
| 80Q112BF | 50 | 20 | 10 | 200 | 100 | 30 | N | 300 |
| 80Q113AF | 50 | 15 | 10 | 200 | 100 | 50 | N | 200 |
| 80Q113AF | 50 | 10 | 15 | 300 | 150 | 50 | <200 | 1,000 |
| 80Q113BF | 70 | 15 | 10 | 200 | 100 | 50 | N | 500 |
| 80Q114AF | 200 | 20 | <10 | 200 | 150 | 50 | N | 200 |
| 80Q114BF | 100 | 10 | N | 200 | 70 | 20 | N | 100 |
| 80Q115AF | 200 | 30 | <10 | 300 | 100 | 50 | 200 | 500 |
| 80Q115BF | 100 | 20 | N | 200 | 100 | 20 | 200 | 200 |
| 80Q116AF | 150 | 20 | <10 | 200 | 100 | 20 | <200 | 200 |
| 80Q116BF | 300 | 20 | 10 | 200 | 150 | 30 | 200 | 200 |
| 80Q117AF | 150 | 15 | 10 | 200 | 100 | 50 | <200 | 500 |
| 80Q117BF | 100 | 15 | <10 | 200 | 50 | 50 | <200 | 500 |
| 80Q118BF | 50 | 15 | 10 | 300 | 100 | 30 | N | 500 |
| 80Q119AF | 50 | 15 | 10 | 300 | 100 | 30 | <200 | 1,000 |
| 80Q119BF | 30 | 10 | 10 | 300 | 70 | 20 | N | 200 |
| 80Q120AF | 50 | 15 | 100 | 500 | 100 | 30 | N | 300 |
| 80Q120BF | 30 | 15 | 10 | 300 | 100 | 20 | N | 200 |
| 80Q121AF | 30 | 15 | 15 | 500 | 100 | 30 | N | 200 |
| 80Q121DF | 30 | 15 | 10 | 500 | 70 | 20 | N | 300 |
| 80Q122AF | 70 | 20 | 20 | 300 | 100 | 50 | <200 | 300 |
| 80Q122BF | 50 | 10 | 10 | 300 | 70 | 20 | 200 | 150 |
| 80Q123AF | 30 | 15 | <10 | 200 | 100 | 50 | N | 1,000 |
| 80Q123BF | 70 | 20 | 10 | 200 | 100 | 30 | 200 | 300 |
| 80Q124AF | 50 | 10 | <10 | N | 50 | 100 | N | 100 |
| 80Q124DF | 100 | 15 | <10 | 300 | 100 | 50 | <200 | >1,000 |

Table 3. GEOCHEMICAL DATA FOR MAGNETIC FRACTION OF HEAVY-MINERAL CONCENTRATES FROM STREAM-SEDIMENT SAMPLES.

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba | be | co | cr | cu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80Q001AM | 36.573 | -105.518 | 20 | .50 | .10 | .7 | 300 | .5 | N | 200 | <1.0 | 30 | 200 | 50 |
| 80Q001BM | 36.570 | -105.518 | >20 | .30 | .10 | 1.0 | 500 | N | N | 200 | N | 50 | 300 | 30 |
| 80Q002AM | 36.698 | -105.550 | 20 | .50 | .15 | 1.0 | 500 | N | N | 200 | 1.0 | 20 | 150 | 30 |
| 80Q002BM | 36.698 | -105.550 | 20 | .70 | .50 | 1.0 | 1,000 | N | 10 | 300 | 1.5 | 20 | 300 | 50 |
| 80Q003AM | 36.579 | -105.384 | 20 | .30 | .20 | >1.0 | 700 | 1.0 | <10 | 100 | N | 30 | 300 | 50 |
| 80Q003BM | 36.579 | -105.384 | 20 | .30 | .30 | 1.0 | 700 | .5 | <10 | 100 | N | 20 | 300 | 70 |
| 80Q004AM | 36.578 | -105.383 | 10 | .50 | .50 | >1.0 | 700 | N | 10 | 300 | <1.0 | 30 | 700 | 50 |
| 80Q004BM | 36.578 | -105.383 | 20 | .50 | .50 | >1.0 | 1,000 | N | <10 | 100 | N | 20 | 300 | 50 |
| 80Q005AM | 36.576 | -105.508 | 20 | .50 | .10 | .7 | 500 | 1.0 | N | 150 | <1.0 | 30 | 150 | 50 |
| 80Q005BM | 36.576 | -105.507 | 20 | .30 | .10 | .7 | 500 | 1.0 | N | 150 | N | 30 | 150 | 50 |
| 80Q006AM | 36.585 | -105.497 | >20 | .20 | .50 | .5 | 300 | N | N | 300 | N | 30 | 500 | 20 |
| 80Q006BM | 36.585 | -105.488 | >20 | .30 | .15 | 1.0 | 500 | N | N | 1,000 | N | 30 | 500 | 20 |
| 80Q007AM | 36.596 | -105.448 | 20 | .30 | .07 | 1.0 | 500 | N | <10 | 100 | N | 20 | 100 | 150 |
| 80Q007BM | 36.596 | -105.448 | 20 | .50 | .10 | 1.0 | 500 | N | 20 | 200 | N | 20 | 700 | 500 |
| 80Q008AM | 36.769 | -105.468 | 15 | .70 | 1.00 | 1.0 | 500 | N | <10 | 500 | <1.0 | 20 | 700 | 50 |
| 80Q008BM | 36.769 | -105.468 | 20 | .70 | .70 | 1.0 | 500 | N | <10 | 300 | <1.0 | 20 | 1,000 | 30 |
| 80Q009AM | 36.769 | -105.467 | 20 | 1.00 | 1.00 | 1.0 | 500 | N | <10 | 200 | <1.0 | 20 | 500 | 100 |
| 80Q009BM | 36.769 | -105.467 | 20 | 2.00 | 1.50 | .7 | 700 | N | 10 | 300 | <1.0 | 20 | 2,000 | 100 |
| 80Q010AM | 36.671 | -105.581 | 20 | .20 | .10 | >1.0 | 700 | N | N | 100 | <1.0 | 30 | 100 | 30 |
| 80Q010BM | 36.671 | -105.581 | 15 | .20 | .10 | >1.0 | 1,000 | N | N | 100 | <1.0 | 20 | 500 | 50 |
| 80Q011AM | 36.768 | -105.345 | 20 | .50 | .10 | 1.0 | 500 | N | 10 | 500 | <1.0 | 30 | 700 | 70 |
| 80Q012BM | 36.766 | -105.348 | 20 | .50 | .15 | >1.0 | 700 | <.5 | 200 | 300 | N | 20 | 1,000 | 50 |
| 80Q013AM | 36.778 | -105.371 | 20 | .70 | .15 | 1.0 | 500 | N | <10 | 700 | <1.0 | 30 | 700 | 50 |
| 80Q013BM | 36.778 | -105.371 | 15 | .70 | .15 | 1.0 | 500 | N | 10 | 500 | <1.0 | 20 | 3,000 | 70 |
| 80Q014AM | 36.762 | -105.425 | 20 | 1.00 | .20 | 1.0 | 500 | <.5 | <10 | 300 | <1.0 | 20 | 500 | 70 |
| 80Q014BM | 36.762 | -105.425 | 20 | 1.00 | .70 | 1.0 | 500 | N | 10 | 200 | <1.0 | 20 | 500 | 50 |
| 80Q015AM | 36.777 | -105.417 | 20 | .30 | .30 | 1.0 | 500 | N | 10 | 100 | <1.0 | 30 | 500 | 50 |
| 80Q015BM | 36.760 | -105.417 | 20 | .30 | .20 | 1.0 | 700 | N | 15 | 100 | <1.0 | 20 | 1,000 | 30 |
| 80Q016AM | 36.737 | -105.456 | 20 | .50 | .07 | 1.0 | 700 | N | N | 500 | <1.0 | 50 | 1,500 | 100 |
| 80Q016BM | 36.737 | -105.456 | 20 | .30 | .10 | 1.0 | 700 | N | N | 300 | <1.0 | 30 | 500 | 50 |
| 80Q017AM | 36.711 | -105.390 | 15 | .30 | .10 | 1.0 | 500 | .7 | N | 2,000 | 1.0 | 30 | 700 | 70 |
| 80Q017BM | 36.711 | -105.390 | 15 | .20 | .10 | 1.0 | 500 | 1.0 | N | 3,000 | 1.0 | 30 | 700 | 50 |
| 80Q018AM | 36.637 | -105.373 | 20 | .30 | .07 | 1.0 | 500 | N | N | 1,000 | N | 50 | 200 | 20 |
| 80Q018BM | 36.638 | -105.373 | >20 | .20 | .07 | 1.0 | 500 | N | N | 2,000 | N | 50 | 200 | 15 |
| 80Q019AM | 36.637 | -105.373 | 20 | .20 | .20 | 1.0 | 700 | N | N | 200 | <1.0 | 50 | 100 | 20 |
| 80Q019BM | 36.637 | -105.374 | 20 | .20 | .20 | >1.0 | 1,000 | N | <10 | 300 | <1.0 | 50 | 500 | 50 |
| 80Q020AM | 36.599 | -105.385 | 20 | .30 | .30 | 1.0 | 300 | N | N | 70 | N | 20 | 150 | 70 |
| 80Q020BM | 36.600 | -105.384 | 20 | .30 | .30 | 1.0 | 300 | N | N | 70 | N | 20 | 200 | 50 |
| 80Q021AM | 36.610 | -105.410 | 20 | .50 | .50 | 1.0 | 500 | N | <10 | 150 | N | 30 | 300 | 50 |
| 80Q021BM | 36.610 | -105.410 | 20 | .30 | .10 | 1.0 | 500 | N | <10 | 100 | <1.0 | 20 | 1,000 | 100 |
| 80Q022AM | 36.611 | -105.406 | 20 | .20 | .07 | .7 | 500 | N | N | 100 | N | 30 | 700 | 50 |
| 80Q022BM | 36.611 | -105.406 | >20 | .30 | .10 | .7 | 700 | N | 15 | 100 | N | 30 | 200 | 30 |
| 80Q023AM | 36.637 | -105.386 | 20 | .30 | .07 | >1.0 | 500 | N | N | 500 | <1.0 | 30 | 500 | 50 |
| 80Q023BM | 36.637 | -105.386 | 20 | .20 | .05 | 1.0 | 500 | N | <10 | 500 | 1.0 | 20 | 2,000 | 100 |
| 80Q024AM | 36.596 | -105.581 | 20 | .50 | .15 | 1.0 | 500 | N | N | 300 | N | 50 | 300 | 50 |

Table 3 (cont).

| Sample | La | Mo | Nb | Ni | Pb | Sc | Sn | Sr | V | Y | Zn | Zr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80Q001AM | 100 | 5 | 20 | 100 | 50 | 7 | N | <100 | 300 | 30 | 200 | 200 |
| 80Q001BM | 100 | <5 | 20 | 150 | 50 | 10 | N | N | 700 | 30 | 500 | 500 |
| 80Q002AM | 70 | 50 | 20 | 50 | 100 | 15 | N | 100 | 300 | 30 | 500 | 150 |
| 80Q002BM | 70 | 100 | 20 | 70 | 100 | 15 | N | 100 | 300 | 30 | 300 | 100 |
| 80Q003AM | N | N | <20 | 50 | 30 | 15 | N | 200 | 700 | 20 | 300 | 50 |
| 80Q003BM | N | N | 20 | 50 | 30 | 15 | N | 200 | 700 | 20 | 700 | 100 |
| 80Q004AM | <20 | <5 | 30 | 30 | 70 | 15 | N | 150 | 500 | 30 | 500 | 100 |
| 80Q004BM | 50 | N | 20 | 50 | 50 | 20 | N | <100 | 500 | 30 | 500 | 70 |
| 80Q005AM | 70 | <5 | <20 | 100 | 100 | 10 | N | <100 | 500 | 20 | 500 | 200 |
| 80Q005BM | 70 | <5 | 20 | 70 | 100 | 10 | N | N | 500 | 30 | 500 | 300 |
| 80Q006AM | 100 | N | <20 | 100 | 20 | 5 | N | N | 700 | 20 | 200 | 700 |
| 80Q006BM | 200 | N | 20 | 100 | 30 | 7 | N | N | 1,000 | 50 | 500 | >1,000 |
| 80Q007AM | <20 | N | <20 | 50 | 20 | 10 | N | N | 700 | 30 | <200 | 100 |
| 80Q007BM | <20 | N | N | 50 | 30 | 15 | N | <100 | 500 | 30 | 200 | 150 |
| 80Q008AM | 100 | 5 | 20 | 100 | 50 | 20 | N | 500 | 300 | 20 | 300 | 150 |
| 80Q008BM | 100 | 5 | <20 | 100 | 50 | 20 | N | 500 | 300 | 30 | 500 | 100 |
| 80Q009AM | 50 | <5 | N | 150 | 30 | 20 | N | 300 | 200 | 15 | 1,000 | 70 |
| 80Q009BM | 100 | <5 | <20 | 100 | 50 | 20 | N | 300 | 500 | 30 | 300 | 150 |
| 80Q010AM | 50 | N | 30 | 15 | 50 | 10 | N | N | 500 | 20 | 200 | 150 |
| 80Q010BM | 50 | <5 | 30 | 30 | 100 | 10 | N | N | 500 | 30 | 300 | 200 |
| 80Q011AM | 70 | 5 | 20 | 150 | 50 | 10 | N | 100 | 700 | 30 | 1,000 | 300 |
| 80Q012BM | 30 | N | 30 | 100 | 50 | 20 | N | 100 | 500 | 20 | 500 | 150 |
| 80Q013AM | 70 | <5 | 20 | 150 | 70 | 15 | N | 200 | 700 | 20 | 700 | 100 |
| 80Q013BM | 70 | N | <20 | 100 | 70 | 20 | N | 300 | 500 | 20 | 500 | 100 |
| 80Q014AM | 50 | N | <20 | 100 | 100 | 15 | N | 150 | 500 | 50 | 300 | 200 |
| 80Q014BM | 50 | N | <20 | 100 | 50 | 15 | N | 150 | 500 | 50 | 300 | 100 |
| 80Q015AM | 50 | N | <20 | 70 | 30 | 20 | N | 150 | 500 | 50 | 500 | 70 |
| 80Q015BM | 100 | N | <20 | 100 | 50 | 15 | N | 150 | 700 | 70 | 500 | 100 |
| 80Q016AM | 70 | N | 20 | 100 | 100 | 15 | N | 100 | 700 | 20 | 500 | 200 |
| 80Q016BM | 50 | N | <20 | 100 | 70 | 7 | N | 100 | 500 | 20 | 700 | 200 |
| 80Q017AM | 50 | 5 | <20 | 70 | 100 | 15 | N | 100 | 500 | 50 | 1,000 | 300 |
| 80Q017BM | 50 | 5 | <20 | 70 | 200 | 15 | N | 150 | 500 | 50 | 1,000 | 200 |
| 80Q018AM | <20 | 5 | <20 | 50 | 50 | 10 | 10 | <100 | 500 | 30 | 500 | 200 |
| 80Q018BM | 50 | N | 20 | 70 | 30 | 7 | N | <100 | 700 | 50 | 500 | 500 |
| 80Q019AM | 150 | <5 | 20 | 20 | 50 | 10 | N | 100 | 300 | 100 | 700 | 300 |
| 80Q019BM | 150 | <5 | 30 | 20 | 70 | 10 | N | <100 | 500 | 100 | 1,000 | 300 |
| 80Q020AM | 70 | 7 | N | 20 | 20 | 10 | N | 100 | 1,000 | 20 | <200 | 50 |
| 80Q020BM | 30 | N | <20 | 30 | 30 | 10 | N | 100 | 1,000 | 50 | <200 | 50 |
| 80Q021AM | 20 | N | <20 | 50 | 30 | 20 | N | 100 | 700 | 30 | <200 | 70 |
| 80Q021BM | N | N | N | 30 | 30 | 15 | N | 100 | 500 | 20 | <200 | 70 |
| 80Q022AM | N | N | N | 100 | 20 | 7 | N | N | 700 | 10 | 300 | 50 |
| 80Q022BM | N | N | <20 | 70 | 30 | 10 | N | N | 700 | 10 | 200 | 100 |
| 80Q023AM | 30 | 5 | 30 | 150 | 50 | 10 | N | N | 500 | 15 | 500 | 200 |
| 80Q023BM | 50 | <5 | 20 | 150 | 100 | 10 | N | <100 | 500 | 20 | 700 | 200 |
| 80Q024AM | 70 | N | <20 | 70 | 50 | 10 | N | 100 | 500 | 30 | 700 | 200 |

Table 3 (cont).

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba | be | co | cr | cu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80Q024BM | 36.596 | -105.581 | 20 | .50 | .20 | 1.0 | 500 | 1.0 | N | 300 | N | 30 | 300 | 30 |
| 80Q025AM | 36.647 | -105.383 | 15 | .50 | .20 | 1.0 | 1,000 | N | N | 300 | <1.0 | 30 | 300 | 20 |
| 80Q025BM | 36.647 | -105.383 | 20 | .30 | .30 | 1.0 | 1,000 | N | N | 200 | <1.0 | 30 | 150 | 30 |
| 80Q026AM | 36.679 | -105.380 | 20 | .50 | .10 | 1.0 | 500 | N | 20 | 500 | N | 30 | 200 | 30 |
| 80Q026BM | 36.679 | -105.380 | 20 | .50 | .10 | 1.0 | 300 | .7 | N | 150 | N | 30 | 500 | 30 |
| 80Q027AM | 36.597 | -105.582 | >20 | .20 | .10 | 1.0 | 500 | N | N | 200 | N | 30 | 500 | 20 |
| 80Q027BM | 36.597 | -105.582 | >20 | .30 | .10 | 1.0 | 300 | N | N | 100 | N | 30 | 500 | 20 |
| 80Q028AM | 36.569 | -105.495 | 20 | .50 | .10 | .7 | 500 | N | N | 50 | <1.0 | 30 | 700 | 50 |
| 80Q028BM | 36.571 | -105.495 | >20 | .30 | .10 | .5 | 500 | 2.0 | N | 100 | <1.0 | 50 | 1,000 | 100 |
| 80Q029AM | 36.570 | -105.487 | >20 | .50 | .15 | 1.0 | 500 | 1.0 | N | 200 | <1.0 | 30 | 150 | 30 |
| 80Q029BM | 36.573 | -105.487 | 20 | .30 | .15 | 1.0 | 500 | .7 | N | 100 | <1.0 | 30 | 150 | 30 |
| 80Q030AM | 36.569 | -105.470 | 20 | .30 | .15 | 1.0 | 500 | N | N | 70 | N | 30 | 700 | 30 |
| 80Q030BM | 36.569 | -105.470 | >20 | .50 | .20 | 1.0 | 500 | N | N | 150 | N | 30 | 200 | 30 |
| 80Q031AM | 36.597 | -105.448 | >20 | .50 | .10 | 1.0 | 1,000 | N | N | 100 | N | 70 | 200 | 20 |
| 80Q031BM | 36.597 | -105.448 | 20 | .30 | .10 | 1.0 | 700 | N | N | 100 | N | 50 | 200 | 30 |
| 80Q032AM | 36.595 | -105.469 | 20 | .20 | .10 | 1.0 | 500 | N | N | 70 | <1.0 | 30 | 500 | 20 |
| 80Q032BM | 36.595 | -105.469 | 20 | .20 | .07 | .5 | 500 | N | N | 100 | N | 30 | 1,000 | 50 |
| 80Q033AM | 36.595 | -105.464 | 20 | .15 | .10 | .7 | 500 | N | N | 70 | <1.0 | 30 | 150 | 20 |
| 80Q033BM | 36.595 | -105.464 | 20 | .20 | .10 | 1.0 | 500 | N | N | 100 | N | 20 | 500 | 30 |
| 80Q034AM | 36.573 | -105.510 | 20 | .30 | .10 | .7 | 500 | N | N | 50 | N | 50 | 500 | 50 |
| 80Q034BM | 36.573 | -105.510 | 20 | .30 | .10 | .7 | 700 | N | N | 70 | N | 30 | 150 | 20 |
| 80Q035AM | 36.583 | -105.449 | >20 | .30 | .15 | 1.0 | 500 | N | N | 100 | N | 50 | 500 | 20 |
| 80Q035BM | 36.583 | -105.449 | 20 | .30 | .30 | .7 | 300 | N | N | 100 | N | 50 | 300 | 20 |
| 80Q036AM | 36.646 | -105.516 | 20 | .50 | .10 | >1.0 | 700 | N | 15 | 70 | N | 20 | 2,000 | 100 |
| 80Q036BM | 36.646 | -105.516 | 20 | .50 | .10 | >1.0 | 700 | N | 10 | 150 | <1.0 | 20 | 500 | 20 |
| 80Q037AM | 36.647 | -105.494 | 20 | .20 | .10 | 1.0 | 500 | N | <10 | 150 | N | 30 | 100 | 20 |
| 80Q037BM | 36.647 | -105.494 | 20 | .20 | .20 | 1.0 | 700 | N | 10 | 100 | N | 20 | 100 | 20 |
| 80Q038AM | 36.646 | -105.516 | >20 | .30 | .15 | .7 | 300 | N | N | 100 | N | 30 | 300 | 30 |
| 80Q038BM | 36.646 | -105.494 | 20 | .20 | .15 | .7 | 500 | N | N | 70 | N | 30 | 300 | 20 |
| 80Q039AM | 36.646 | -105.515 | >20 | .20 | .20 | .7 | 500 | N | N | 50 | N | 30 | 500 | 15 |
| 80Q039BM | 36.646 | -105.515 | 20 | .15 | .10 | .5 | 500 | N | N | 70 | N | 30 | 1,000 | 30 |
| 80Q040AM | 36.649 | -105.518 | 20 | .20 | .20 | .7 | 300 | N | N | 50 | <1.0 | 30 | 200 | 20 |
| 80Q040BM | 36.649 | -105.518 | 20 | .20 | .10 | .5 | 500 | N | N | 100 | <1.0 | 30 | 1,000 | 70 |
| 80Q041AM | 36.658 | -105.515 | 20 | .30 | .10 | 1.0 | 500 | N | N | 100 | 1.0 | 30 | 500 | 30 |
| 80Q041BM | 36.658 | -105.516 | 20 | .50 | .20 | 1.0 | 700 | <.5 | 10 | 200 | <1.0 | 30 | 500 | 30 |
| 80Q042AM | 36.679 | -105.443 | 20 | .30 | .10 | >1.0 | 500 | N | <10 | 200 | N | 50 | 300 | 30 |
| 80Q042BM | 36.679 | -105.443 | 20 | .20 | .10 | 1.0 | 500 | <.5 | N | 100 | N | 30 | 150 | 30 |
| 80Q043AM | 36.679 | -105.445 | 20 | .20 | .10 | 1.0 | 300 | N | N | 100 | <1.0 | 20 | 200 | 20 |
| 80Q043BM | 36.679 | -105.443 | 20 | .20 | .10 | 1.0 | 500 | .7 | N | 100 | <1.0 | 20 | 200 | 20 |
| 80Q044AM | 36.559 | -105.532 | >20 | .30 | .15 | 1.0 | 500 | N | N | 50 | N | 50 | 200 | 20 |
| 80Q044BM | 36.559 | -105.532 | 20 | .20 | .20 | .7 | 500 | N | N | 100 | N | 30 | 300 | 20 |
| 80Q045AM | 36.696 | -105.576 | 20 | .70 | .50 | 1.0 | 500 | <.5 | N | 300 | <1.0 | 50 | 700 | 100 |
| 80Q045BM | 36.696 | -105.576 | 15 | .70 | .30 | 1.0 | 500 | .5 | <10 | 200 | 1.0 | 50 | 1,500 | 100 |
| 80Q046AM | 36.696 | -105.576 | 20 | .20 | .15 | .7 | 700 | 1.0 | N | 150 | <1.0 | 30 | 3,000 | 150 |
| 80Q046BM | 36.696 | -105.576 | >20 | .30 | .20 | .7 | 500 | N | N | 200 | <1.0 | 30 | 1,000 | 100 |

Table 3 (cont).

| Sample | La | Mo | Nb | Ni | Pb | Sc | Sn | Sr | V | Y | Zn | Zr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80Q024BM | 70 | N | <20 | 70 | 70 | 10 | N | 100 | 300 | 30 | <200 | 500 |
| 80Q025AM | 70 | N | <20 | 50 | 100 | 10 | N | 100 | 500 | 50 | 1,000 | 300 |
| 80Q025BM | 70 | N | 20 | 50 | 50 | 10 | N | 100 | 500 | 50 | 1,000 | 300 |
| 80Q026AM | 70 | 5 | <20 | 70 | 70 | 15 | N | <100 | 500 | 30 | 700 | 200 |
| 80Q026BM | 50 | N | <20 | 70 | 50 | 10 | N | N | 500 | 30 | 200 | 500 |
| 80Q027AM | 100 | N | 20 | 100 | 30 | 7 | N | N | 1,000 | 50 | 300 | >1,000 |
| 80Q027BM | 70 | N | 20 | 100 | 50 | 7 | N | N | 500 | 30 | <200 | 700 |
| 80Q028AM | 50 | 15 | 30 | 50 | 20 | 10 | N | <100 | 1,000 | 30 | 200 | 100 |
| 80Q028BM | 50 | 20 | 30 | 30 | 70 | 15 | N | N | 1,000 | 20 | 200 | 100 |
| 80Q029AM | 100 | N | 20 | 50 | 50 | 15 | N | 100 | 500 | 50 | 500 | 150 |
| 80Q029BM | 20 | N | <20 | 30 | 50 | 15 | N | 100 | 300 | 30 | 200 | 100 |
| 80Q030AM | 50 | 5 | 20 | 50 | 50 | 15 | N | 100 | 1,000 | 30 | 200 | 150 |
| 80Q030BM | 30 | 5 | <20 | 70 | 20 | 15 | N | 100 | 700 | 50 | 500 | 100 |
| 80Q031AM | 70 | N | 20 | 100 | 150 | 15 | N | N | 700 | 50 | 1,000 | 150 |
| 80Q031BM | 70 | <5 | 20 | 100 | 150 | 10 | N | N | 500 | 50 | 700 | 150 |
| 80Q032AM | 50 | N | <20 | 70 | 50 | 10 | N | 100 | 500 | 30 | 300 | 150 |
| 80Q032BM | N | N | N | 50 | 50 | 10 | N | N | 500 | 20 | 300 | 100 |
| 80Q033AM | 30 | N | <20 | 50 | 50 | 10 | N | N | 300 | 30 | 300 | 200 |
| 80Q033BM | <20 | N | N | 100 | 50 | 7 | N | <100 | 500 | 20 | 200 | 200 |
| 80Q034AM | 50 | 5 | 20 | 50 | 30 | 10 | N | <100 | 700 | 30 | 300 | 100 |
| 80Q034BM | 50 | <5 | 20 | 50 | 50 | 10 | N | 100 | 700 | 20 | 200 | 100 |
| 80Q035AM | 150 | N | 30 | 100 | 50 | 10 | N | N | 1,000 | 50 | 300 | 700 |
| 80Q035BM | 150 | N | 20 | 100 | 30 | 7 | N | <100 | 500 | 50 | <200 | 200 |
| 80Q036AM | N | N | <20 | 50 | 30 | 10 | N | N | 500 | 20 | 200 | 70 |
| 80Q036BM | N | N | 20 | 50 | 30 | 15 | N | N | 300 | 20 | 200 | 100 |
| 80Q037AM | <20 | N | <20 | 30 | 20 | 10 | N | N | 500 | 15 | 200 | 70 |
| 80Q037BM | N | N | <20 | 30 | 30 | 10 | N | 100 | 500 | 20 | <200 | 70 |
| 80Q038AM | 50 | N | 20 | 50 | 50 | 7 | N | N | 700 | 20 | 200 | 200 |
| 80Q038BM | 50 | N | <20 | 50 | 30 | 7 | N | N | 500 | 20 | 200 | 200 |
| 80Q039AM | 100 | N | <20 | 100 | 30 | 5 | N | N | 700 | 20 | 500 | 500 |
| 80Q039BM | 50 | 5 | <20 | 70 | 70 | 7 | N | N | 700 | 15 | 500 | 200 |
| 80Q040AM | 200 | <5 | 50 | 30 | 30 | 10 | N | N | 500 | 50 | 200 | 700 |
| 80Q040BM | 150 | <5 | 50 | 50 | 70 | 10 | N | N | 700 | 50 | 200 | 200 |
| 80Q041AM | N | N | <20 | 50 | 100 | 10 | N | N | 300 | 30 | 200 | 100 |
| 80Q041BM | 70 | <5 | 20 | 70 | 100 | 20 | N | 100 | 300 | 70 | 300 | 700 |
| 80Q042AM | <20 | <5 | 20 | 50 | 70 | 10 | N | N | 500 | 50 | 700 | 200 |
| 80Q042BM | <20 | <5 | <20 | 50 | 150 | 10 | 30 | N | 700 | 20 | 500 | 70 |
| 80Q043AM | 30 | 5 | 20 | 30 | 70 | 10 | N | N | 500 | 30 | 500 | 150 |
| 80Q043BM | 20 | <5 | <20 | 30 | 50 | 10 | N | N | 500 | 50 | 500 | 150 |
| 80Q044AM | 150 | N | 50 | 100 | 20 | 10 | N | N | 1,000 | 50 | 500 | 1,000 |
| 80Q044BM | 100 | <5 | 30 | 70 | 30 | 7 | N | N | 700 | 30 | 300 | 1,000 |
| 80Q045AM | 70 | 150 | 20 | 150 | 50 | 15 | N | 100 | 700 | 50 | <200 | 100 |
| 80Q045BM | 100 | 200 | 20 | 150 | 70 | 10 | N | 150 | 700 | 50 | 200 | 200 |
| 80Q046AM | 100 | 100 | <20 | 150 | 70 | 10 | N | <100 | 700 | 30 | 200 | 200 |
| 80Q046BM | 70 | 100 | 20 | 200 | 30 | 10 | N | N | 700 | 30 | 200 | 200 |

Table 3 (cont).

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba | be | co | cr | cu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80Q047AM | 36.577 | -105.581 | >20 | .50 | .15 | 1.0 | 300 | 1.0 | N | 300 | N | 50 | 500 | 70 |
| 80Q047BM | 36.577 | -105.581 | 20 | .50 | .20 | 1.0 | 500 | 1.0 | N | 100 | N | 30 | 700 | 70 |
| 80Q101AM | 36.518 | -105.536 | 20 | .70 | .50 | 1.0 | 1,000 | N | N | 70 | N | 30 | 150 | 50 |
| 80Q101BM | 36.518 | -105.536 | 20 | .50 | .30 | 1.0 | 500 | N | <10 | 50 | N | 30 | 150 | 50 |
| 80Q102AM | 36.539 | -105.563 | 20 | .70 | .50 | 1.0 | 500 | N | N | 100 | N | 50 | 200 | 50 |
| 80Q102BM | 36.544 | -105.536 | 20 | .70 | .15 | >1.0 | 500 | N | N | 150 | N | 50 | 200 | 100 |
| 80Q103AM | 36.594 | -105.447 | 20 | .70 | .20 | 1.0 | 500 | N | <10 | 100 | N | 30 | 300 | 50 |
| 80Q103BM | 36.594 | -105.447 | 20 | .30 | .15 | 1.0 | 500 | N | <10 | 100 | N | 30 | 500 | 70 |
| 80Q104AM | 36.598 | -105.481 | >20 | .20 | .20 | 1.0 | 500 | .7 | N | 150 | N | 30 | 300 | 20 |
| 80Q104BM | 36.598 | -105.481 | >20 | .20 | .10 | .7 | 300 | <.5 | N | 70 | N | 30 | 200 | 20 |
| 80Q105AM | 36.599 | -105.480 | 20 | .20 | .05 | .5 | 500 | 1.0 | N | 150 | 1.0 | 20 | 1,000 | 70 |
| 80Q105BM | 36.599 | -105.480 | >20 | .20 | .05 | .2 | 200 | <.5 | N | 100 | <1.0 | 20 | 100 | 50 |
| 80Q106AM | 36.553 | -105.537 | 20 | .50 | .70 | 1.0 | 300 | N | N | 70 | N | 30 | 150 | 30 |
| 80Q106BM | 36.553 | -105.537 | 20 | .50 | 1.00 | 1.0 | 500 | N | N | 70 | N | 20 | 200 | 30 |
| 80Q107AM | 36.812 | -105.513 | 20 | .30 | .20 | 1.0 | 700 | N | <10 | 70 | N | 20 | 1,500 | 70 |
| 80Q107BM | 36.812 | -105.513 | >20 | .20 | .15 | 1.0 | 700 | N | N | 100 | N | 30 | 500 | 15 |
| 80Q107CM | 36.812 | -105.546 | 20 | .20 | .20 | 1.0 | 700 | N | N | 30 | N | 30 | 300 | 10 |
| 80Q107DM | 36.812 | -105.513 | >20 | .20 | .10 | >1.0 | 500 | N | N | 70 | N | 30 | 300 | 10 |
| 80Q108AM | 36.752 | -105.566 | 20 | .15 | .05 | 1.0 | 1,000 | N | 10 | 70 | 1.0 | 20 | 200 | 20 |
| 80Q108BM | 36.752 | -105.566 | 20 | .15 | .05 | .7 | 1,000 | N | 15 | 30 | <1.0 | 15 | 50 | 10 |
| 80Q109AM | 36.796 | -105.553 | 20 | .20 | .10 | 1.0 | 1,000 | N | N | 70 | <1.0 | 20 | 150 | 15 |
| 80Q109BM | 36.796 | -105.553 | 20 | .30 | .10 | 1.0 | 700 | N | <10 | 150 | <1.0 | 30 | 200 | 20 |
| 80Q110AM | 36.787 | -105.557 | >20 | .30 | .10 | 1.0 | 1,500 | N | 10 | 50 | <1.0 | 15 | 50 | 5 |
| 80Q110BM | 36.787 | -105.557 | 20 | .20 | .10 | 1.0 | 1,500 | N | <10 | 30 | <1.0 | 20 | 200 | 10 |
| 80Q110CM | 36.787 | -105.557 | >20 | .30 | .10 | 1.0 | 5,000 | N | 10 | 70 | <1.0 | 30 | 100 | 7 |
| 80Q110DM | 36.770 | -105.557 | >20 | .20 | .10 | .7 | 1,000 | N | 10 | 50 | N | 15 | 70 | 5 |
| 80Q111AM | 36.557 | -105.535 | 20 | .30 | .10 | .5 | 1,000 | N | <10 | 70 | N | 30 | 1,000 | 50 |
| 80Q111BM | 36.557 | -105.535 | 20 | .30 | .15 | .5 | 500 | N | N | 50 | N | 30 | 150 | 15 |
| 80Q112AM | 36.615 | -105.611 | 15 | .50 | .30 | 1.0 | 500 | N | <10 | 150 | <1.0 | 30 | 200 | 20 |
| 80Q112BM | 36.615 | -105.611 | >20 | .30 | .15 | 1.0 | 500 | 1.0 | N | 200 | <1.0 | 30 | 200 | 50 |
| 80Q113AM | 36.645 | -105.586 | >20 | .20 | .07 | 1.0 | 500 | N | N | 200 | 1.0 | 30 | 100 | 20 |
| 80Q113BM | 36.595 | -105.586 | >20 | .20 | .10 | 1.0 | 500 | N | N | 100 | 1.0 | 20 | 70 | 20 |
| 80Q114AM | 36.697 | -105.482 | >20 | .70 | .50 | 1.0 | 700 | .5 | <10 | 300 | <1.0 | 70 | 500 | 70 |
| 80Q115AM | 36.694 | -105.496 | 20 | 1.00 | .30 | >1.0 | 1,000 | N | <10 | 100 | <1.0 | 30 | 3,000 | 100 |
| 80Q115BM | 36.694 | -105.496 | 20 | 1.00 | .20 | 1.0 | 700 | <.5 | <10 | 100 | <1.0 | 50 | 700 | 50 |
| 80Q116BM | 36.684 | -105.508 | 20 | 1.00 | .20 | 1.0 | 700 | 3.0 | N | 150 | 1.0 | 50 | 500 | 70 |
| 80Q117AM | 36.685 | -105.543 | 20 | .20 | .10 | >1.0 | 700 | N | N | 100 | 1.0 | 30 | 100 | 30 |
| 80Q117BM | 36.685 | -105.543 | 15 | .20 | .30 | >1.0 | 1,000 | N | N | 100 | 1.0 | 30 | 200 | 50 |
| 80Q118AM | 36.698 | -105.550 | 20 | .20 | .07 | 1.0 | 500 | N | <10 | 300 | <1.0 | 50 | 500 | 20 |
| 80Q118BM | 36.698 | -105.550 | 20 | .30 | .07 | 1.0 | 500 | N | <10 | 300 | <1.0 | 50 | 3,000 | 70 |
| 80Q119AM | 36.822 | -105.388 | 20 | .50 | .07 | 1.0 | 500 | N | N | 200 | N | 50 | 700 | 30 |
| 80Q119BM | 36.772 | -105.388 | 20 | .50 | .07 | 1.0 | 700 | N | N | 500 | N | 50 | 700 | 50 |
| 80Q120AM | 36.767 | -105.393 | 20 | .20 | .10 | 1.0 | 500 | N | <10 | 300 | N | 50 | 700 | 20 |
| 80Q120BM | 36.767 | -105.393 | 15 | .50 | .15 | 1.0 | 700 | N | <10 | 500 | <1.0 | 50 | 1,500 | 50 |
| 80Q121AM | 36.764 | -105.407 | 20 | .50 | .20 | 1.0 | 300 | N | N | 150 | <1.0 | 30 | 1,000 | 50 |

Table 3 (cont).

| Sample | la | mo | nb | ni | pb | sc | sn | sr | v | y | zn | zr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80Q047AM | 100 | N | 20 | 100 | 70 | 10 | N | N | 500 | 30 | 200 | 200 |
| 80Q047BM | 50 | <5 | 20 | 150 | 100 | 10 | N | N | 500 | 30 | 200 | 150 |
| 80Q101AM | 150 | N | 30 | 50 | 20 | 20 | N | 100 | 500 | 50 | 200 | 500 |
| 80Q101BM | 200 | N | 50 | 20 | 20 | 20 | N | N | 500 | 50 | 300 | 200 |
| 80Q102AM | 100 | <5 | 20 | 70 | 30 | 15 | N | <100 | 300 | 30 | <200 | 100 |
| 80Q102BM | 100 | N | 30 | 100 | 20 | 20 | N | <100 | 500 | 50 | 300 | 200 |
| 80Q103AM | <20 | <5 | <20 | 50 | 70 | 30 | N | 200 | 500 | 30 | 200 | 100 |
| 80Q103BM | N | N | <20 | 50 | 70 | 15 | N | 100 | 700 | 15 | 300 | 100 |
| 80Q104AM | 200 | <5 | 30 | 100 | 50 | 10 | N | N | 1,000 | 70 | 500 | 1,000 |
| 80Q104BM | 150 | 5 | 20 | 70 | 70 | 7 | N | N | 500 | 30 | 200 | 1,000 |
| 80Q105AM | 30 | N | N | 20 | 30 | 10 | N | N | 200 | 50 | <200 | 150 |
| 80Q105BM | 30 | N | <20 | 20 | 30 | 10 | N | N | 200 | 30 | <200 | 100 |
| 80Q106AM | 200 | <5 | 50 | 70 | 20 | 15 | 20 | N | 300 | 100 | 200 | 200 |
| 80Q106BM | 300 | N | 50 | 100 | 30 | 20 | 15 | N | 300 | 100 | 200 | 200 |
| 80Q107AM | 100 | N | <20 | 50 | 20 | 15 | N | <100 | 500 | 50 | 200 | 100 |
| 80Q107BM | 100 | N | 20 | 70 | 10 | 15 | N | N | 500 | 100 | 500 | 150 |
| 80Q107CM | 100 | N | 20 | 30 | 20 | 10 | 50 | N | 500 | 100 | 200 | 200 |
| 80Q107DM | 70 | <5 | 20 | 70 | 20 | 15 | N | N | 500 | 100 | 300 | 100 |
| 80Q108AM | 70 | 7 | 30 | 20 | 50 | 15 | N | N | 150 | 50 | 1,500 | 200 |
| 80Q108BM | 100 | N | 50 | 20 | 20 | 20 | 30 | N | 100 | 100 | 1,000 | 700 |
| 80Q109AM | 150 | N | 50 | 50 | 30 | 20 | 20 | N | 300 | 200 | 500 | 100 |
| 80Q109BM | 100 | N | 30 | 100 | 20 | 20 | 20 | N | 500 | 100 | 700 | 100 |
| 80Q110AM | 100 | N | 70 | 10 | 30 | 20 | 30 | N | 200 | 100 | 1,000 | 300 |
| 80Q110BM | 150 | 7 | 50 | 20 | 20 | 20 | N | N | 150 | 70 | 1,500 | 500 |
| 80Q110CM | 150 | <5 | 70 | 20 | 20 | 30 | 50 | <100 | 150 | 100 | 1,500 | 700 |
| 80Q110DM | 100 | N | 50 | 10 | 30 | 15 | 30 | N | 150 | 70 | 1,000 | 200 |
| 80Q111AM | 150 | N | 20 | 30 | 20 | 15 | N | N | 700 | 50 | 500 | 200 |
| 80Q111BM | 200 | <5 | 30 | 50 | 20 | 15 | N | N | 500 | 50 | 500 | 500 |
| 80Q112AM | 50 | 5 | 20 | 30 | 70 | 10 | N | 100 | 200 | 50 | 200 | 500 |
| 80Q112BM | 20 | N | 30 | 30 | 100 | 10 | 50 | <100 | 200 | 50 | 300 | 200 |
| 80Q113AM | 20 | <5 | 30 | 30 | 50 | 10 | N | N | 300 | 50 | 500 | 500 |
| 80Q113BM | 20 | 10 | 20 | 20 | 50 | 7 | N | N | 200 | 50 | 200 | 300 |
| 80Q114AM | 70 | 10 | 20 | 100 | 100 | 20 | N | 200 | 700 | 50 | 500 | 100 |
| 80Q115AM | 70 | 10 | 20 | 100 | 100 | 15 | N | <100 | 500 | 20 | 300 | 200 |
| 80Q115BM | 70 | 10 | 20 | 100 | 100 | 20 | N | 100 | 300 | 30 | 500 | 150 |
| 80Q116BM | 50 | 20 | <20 | 100 | 100 | 15 | N | 100 | 500 | 20 | 300 | 100 |
| 80Q117AM | 70 | 5 | 20 | 30 | 70 | 15 | N | <100 | 500 | 50 | 300 | 150 |
| 80Q117BM | 50 | 10 | 30 | 30 | 70 | 10 | N | 100 | 500 | 30 | 300 | 150 |
| 80Q118AM | 50 | <5 | 20 | 100 | 50 | 10 | <10 | N | 500 | 15 | 700 | 200 |
| 80Q118BM | N | N | 20 | 200 | 70 | 10 | N | N | 1,000 | 10 | 700 | 150 |
| 80Q119AM | 50 | N | 20 | 150 | 50 | 10 | N | <100 | 500 | 10 | 700 | 200 |
| 80Q119BM | 30 | N | <20 | 200 | 70 | 10 | N | 150 | 700 | 10 | 700 | 300 |
| 80Q120AM | 70 | 7 | <20 | 150 | 70 | 10 | N | <100 | 700 | 30 | 500 | 200 |
| 80Q120BM | 100 | 5 | 20 | 150 | 150 | 10 | N | 100 | 500 | 30 | 700 | 500 |
| 80Q121AM | 70 | <5 | <20 | 150 | 50 | 10 | N | 200 | 500 | 20 | 700 | 150 |

Table 3 (cont).

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba | be | co | cr | cu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80Q121BM | 36.764 | -105.407 | 20 | .50 | .20 | 1.0 | 300 | .7 | <10 | 300 | <1.0 | 30 | 700 | 50 |
| 80Q122AM | 36.754 | -105.434 | 20 | .30 | .15 | 1.0 | 500 | N | N | 100 | N | 20 | 500 | 50 |
| 80Q122BM | 36.754 | -105.438 | 20 | .30 | .20 | .7 | 500 | N | N | 100 | <1.0 | 30 | 500 | 30 |
| 80Q123AM | 36.736 | -105.516 | >20 | .30 | .10 | 1.0 | 700 | N | <10 | 150 | <1.0 | 30 | 200 | 20 |
| 80Q123BM | 36.694 | -105.516 | 20 | .30 | .07 | 1.0 | 700 | N | <10 | 100 | <1.0 | 20 | 1,000 | 150 |

| Sample | La | mo | nb | ni | pb | sc | sn | sr | v | y | zn | zr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80Q121BM | 70 | <5 | 20 | 150 | 70 | 15 | N | 200 | 500 | 70 | 700 | 200 |
| 80Q122AM | 70 | <5 | <20 | 200 | 20 | 15 | N | <100 | 700 | 30 | 300 | 100 |
| 80Q122BM | 50 | N | <20 | 100 | 20 | 10 | N | 100 | 700 | 70 | 500 | 100 |
| 80Q123AM | 200 | N | 20 | 70 | 50 | 20 | N | N | 500 | 100 | 700 | 150 |
| 80Q123BM | 150 | N | <20 | 20 | 70 | 15 | N | N | 300 | 70 | 500 | 100 |

Table 4. GEOCHEMICAL DATA FOR NON-MAGNETIC FRACTION OF HEAVY-MINERAL CONCENTRATES FROM STREAM-SEDIMENT SAMPLES.

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q001AN | 36.573 | -105.518 | 7 | .7 | 1.0 | .7 | 700 | 2.0 | 15 | 500 |
| 80Q001BN | 36.570 | -105.518 | 15 | .7 | 1.5 | 1.0 | 1,000 | 2.0 | 10 | 500 |
| 80Q002AN | 36.698 | -105.550 | 5 | .7 | 1.0 | .5 | 700 | 1.0 | 10 | 1,000 |
| 80Q002BN | 36.698 | -105.550 | 7 | .7 | 1.0 | .5 | 1,500 | 1.0 | 10 | 500 |
| 80Q003AN | 36.579 | -105.384 | 20 | .5 | 1.0 | 1.0 | 700 | 5.0 | 15 | 700 |
| 80Q003BN | 36.579 | -105.384 | 15 | .7 | 1.0 | .7 | 700 | 5.0 | 30 | 1,000 |
| 80Q004AN | 36.578 | -105.383 | 7 | 1.0 | .7 | 1.0 | 1,000 | .7 | 20 | 700 |
| 80Q004BN | 36.578 | -105.383 | 7 | .7 | 1.0 | 1.0 | 1,000 | 1.0 | 15 | 300 |
| 80Q005AN | 36.576 | -105.508 | 10 | .5 | .7 | .5 | 500 | 2.0 | 10 | 300 |
| 80Q006AN | 36.585 | -105.497 | 10 | 1.0 | 1.5 | >1.0 | 500 | 3.0 | 10 | 5,000 |
| 80Q006BN | 36.585 | -105.488 | 10 | .7 | 2.0 | >1.0 | 700 | 5.0 | <10 | 5,000 |
| 80Q007AN | 36.596 | -105.448 | 15 | 1.5 | 1.0 | 1.0 | 2,000 | 1.0 | 70 | 500 |
| 80Q007BN | 36.596 | -105.448 | 10 | 1.0 | 1.0 | >1.0 | 2,000 | 1.0 | 150 | 500 |
| 80Q008AN | 36.769 | -105.468 | 10 | 1.0 | 2.0 | .5 | 1,000 | N | 10 | 1,000 |
| 80Q008BN | 36.769 | -105.468 | 15 | 1.0 | 5.0 | 1.0 | 1,500 | N | 10 | 500 |
| 80Q009AN | 36.769 | -105.467 | 10 | 3.0 | 2.0 | 1.0 | 1,000 | N | 20 | 500 |
| 80Q009BN | 36.769 | -105.467 | 15 | 3.0 | 3.0 | 1.0 | 100 | N | 10 | 500 |
| 80Q010AN | 36.671 | -105.581 | 15 | .5 | .7 | 1.0 | 2,000 | 1.0 | 20 | 700 |
| 80Q010BN | 36.671 | -105.581 | 10 | .5 | 1.0 | 1.0 | 2,000 | 1.0 | 20 | 1,000 |
| 80Q011AN | 36.768 | -105.345 | 10 | 1.5 | 1.0 | .7 | 700 | N | 15 | 1,000 |
| 80Q011BN | 36.768 | -105.345 | 7 | 1.0 | .5 | .7 | 700 | N | 10 | 1,500 |
| 80Q012AN | 36.766 | -105.348 | 5 | 1.0 | .7 | 1.0 | 1,000 | N | 15 | 1,500 |
| 80Q012BN | 36.766 | -105.348 | 5 | 1.0 | .7 | .7 | 700 | N | 10 | 1,000 |
| 80Q013AN | 36.778 | -105.371 | 15 | 1.0 | 1.0 | 1.0 | 1,000 | N | <10 | 700 |
| 80Q013BN | 36.778 | -105.371 | 15 | 1.0 | 1.5 | 1.0 | 1,000 | N | 10 | 1,000 |
| 80Q014AN | 36.762 | -105.425 | 15 | .7 | .7 | .7 | 5,000 | .5 | 70 | 300 |
| 80Q014BN | 36.762 | -105.425 | 10 | 1.0 | .7 | .7 | 3,000 | <.5 | 50 | 300 |
| 80Q015AN | 36.777 | -105.417 | 15 | .7 | 1.0 | 1.0 | 5,000 | N | 100 | 200 |
| 80Q015BN | 36.727 | -105.417 | 15 | .7 | 1.0 | 1.0 | >5,000 | N | 150 | 300 |
| 80Q016AN | 36.737 | -105.456 | 10 | .5 | .5 | 1.0 | 1,000 | 1.0 | 20 | 1,500 |
| 80Q016BN | 36.737 | -105.456 | 10 | .7 | .7 | 1.0 | 700 | 1.0 | 20 | 1,000 |
| 80Q017AN | 36.711 | -105.390 | 20 | .5 | .5 | 1.0 | 700 | 5.0 | 10 | >5,000 |
| 80Q017BN | 36.711 | -105.390 | 20 | .5 | .5 | 1.0 | 700 | 5.0 | 10 | >5,000 |
| 80Q018AN | 36.637 | -105.373 | 15 | .5 | .5 | 1.0 | 1,000 | 1.0 | 10 | >5,000 |
| 80Q018BN | 36.638 | -105.373 | 20 | .5 | .5 | 1.0 | 700 | 1.0 | 15 | >5,000 |
| 80Q019AN | 36.637 | -105.374 | 10 | .3 | .7 | .7 | 500 | N | 15 | 1,000 |
| 80Q019BN | 36.637 | -105.374 | 15 | .2 | .7 | 1.0 | 500 | N | 15 | 1,000 |
| 80Q020AN | 36.599 | -105.385 | 15 | 1.5 | 1.5 | 1.0 | 1,000 | .5 | <10 | 500 |
| 80Q020BN | 36.600 | -105.384 | 15 | 1.5 | 2.0 | 1.0 | 1,000 | N | 30 | 300 |
| 80Q021AN | 36.610 | -105.410 | 10 | 1.5 | 2.0 | 1.0 | 1,000 | 1.0 | 15 | 500 |
| 80Q021BN | 36.610 | -105.410 | 15 | 1.5 | 5.0 | 1.0 | 200 | 2.0 | 10 | 500 |
| 80Q022AN | 36.611 | -105.406 | 20 | 1.5 | .5 | 1.0 | >5,000 | .5 | 150 | 1,000 |
| 80Q022BN | 36.611 | -105.406 | 20 | 1.0 | .7 | >1.0 | >5,000 | N | 200 | 300 |
| 80Q023AN | 36.637 | -105.386 | 15 | .5 | .5 | 1.0 | 700 | .7 | 10 | 700 |
| 80Q023BN | 36.637 | -105.386 | 15 | .3 | .5 | 1.0 | 500 | .7 | 20 | 1,000 |

Table 4 (cont).

| Sample | be | bi | co | cr | cu | la | mo | nb | ni | pb |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q001AN | <1.0 | N | 20 | 200 | 100 | 100 | 20 | 30 | 100 | 70 |
| 80Q001BN | 1.0 | 20 | 50 | 100 | 150 | 200 | 20 | 50 | 70 | 150 |
| 80Q002AN | 2.0 | <10 | 10 | 70 | 100 | 100 | 150 | 70 | 20 | 150 |
| 80Q002BN | 2.0 | 10 | 10 | 70 | 70 | 70 | 500 | 30 | 20 | 500 |
| 80Q003AN | <1.0 | N | 50 | 200 | 200 | 70 | 7 | 20 | 70 | 150 |
| 80Q003BN | <1.0 | N | 30 | 150 | 150 | 150 | 7 | <20 | 50 | 70 |
| 80Q004AN | 1.0 | N | 15 | 100 | 30 | 30 | N | 20 | 20 | 50 |
| 80Q004BN | <1.0 | N | 20 | 100 | 30 | 70 | N | 20 | 30 | 70 |
| 80Q005AN | <1.0 | N | 20 | 50 | 50 | 150 | 30 | 20 | 20 | 200 |
| 80Q006AN | N | N | 30 | 70 | 70 | 500 | 20 | 30 | 50 | 300 |
| 80Q006BN | <1.0 | 10 | 30 | 70 | 70 | 200 | 20 | 50 | 50 | 200 |
| 80Q007AN | <1.0 | N | 30 | 100 | 1,500 | 100 | N | <20 | 50 | 50 |
| 80Q007BN | <1.0 | N | 30 | 50 | 1,000 | 100 | N | 20 | 30 | 50 |
| 80Q008AN | 1.0 | N | 20 | 200 | 70 | 100 | N | <20 | 50 | 70 |
| 80Q008BN | 1.0 | N | 20 | 500 | 50 | 150 | N | 20 | 100 | 100 |
| 80Q009AN | <1.0 | N | 30 | 500 | 50 | 100 | N | <20 | 150 | 50 |
| 80Q009BN | <1.0 | N | 20 | 500 | 70 | 100 | 7 | <20 | 100 | 100 |
| 80Q010AN | 1.0 | N | 20 | 30 | 70 | 150 | 10 | 30 | 20 | 200 |
| 80Q010BN | 1.0 | N | 15 | 70 | 70 | 100 | 10 | 30 | 20 | 300 |
| 80Q011AN | 1.0 | N | 20 | 150 | 20 | 150 | 5 | 30 | 70 | 50 |
| 80Q011BN | 1.0 | N | 15 | 100 | 30 | 150 | N | <20 | 50 | 50 |
| 80Q012AN | 1.0 | <10 | 15 | 200 | 20 | 150 | 5 | 20 | 30 | 30 |
| 80Q012BN | 1.0 | N | 15 | 100 | 15 | 100 | 5 | 30 | 30 | 20 |
| 80Q013AN | 1.0 | N | 20 | 300 | 30 | 150 | 5 | 20 | 100 | 50 |
| 80Q013BN | 1.0 | N | 20 | 200 | 50 | 150 | 5 | <20 | 100 | 70 |
| 80Q014AN | 1.0 | N | 20 | 150 | 50 | 100 | 5 | 20 | 50 | 70 |
| 80Q014BN | <1.0 | N | 20 | 200 | 70 | 200 | N | 20 | 70 | 50 |
| 80Q015AN | <1.0 | N | 20 | 100 | 30 | 700 | N | 20 | 20 | 100 |
| 80Q015BN | <1.0 | N | 15 | 70 | 50 | 300 | N | 30 | 20 | 50 |
| 80Q016AN | 1.0 | N | 15 | 100 | 70 | 100 | 15 | 30 | 50 | 200 |
| 80Q016BN | 1.0 | N | 20 | 70 | 100 | 150 | 15 | 20 | 30 | 150 |
| 80Q017AN | 1.0 | N | 30 | 70 | 100 | 70 | 7 | <20 | 50 | 200 |
| 80Q017BN | 1.0 | N | 30 | 100 | 100 | 150 | 7 | 20 | 70 | 300 |
| 80Q018AN | 1.0 | N | 20 | 150 | 50 | 150 | 7 | 20 | 50 | 150 |
| 80Q018BN | 1.0 | N | 20 | 150 | 50 | 200 | 10 | 20 | 50 | 150 |
| 80Q019AN | 1.0 | N | 10 | 50 | 10 | 200 | 5 | 50 | 15 | 50 |
| 80Q019BN | 1.5 | N | 10 | 100 | 50 | 500 | 7 | 50 | 50 | 70 |
| 80Q020AN | <1.0 | N | 20 | 150 | 50 | 300 | N | 20 | 30 | 50 |
| 80Q020BN | <1.0 | N | 20 | 100 | 50 | 200 | N | 20 | 50 | 50 |
| 80Q021AN | N | N | 30 | 100 | 100 | 150 | N | <20 | 30 | 50 |
| 80Q021BN | <1.0 | N | 50 | 100 | 200 | 100 | 10 | <20 | 50 | 100 |
| 80Q022AN | <1.0 | N | 20 | 150 | 100 | 50 | <5 | <20 | 50 | 200 |
| 80Q022BN | <1.0 | N | 30 | 150 | 70 | 70 | 5 | 30 | 70 | 200 |
| 80Q023AN | 1.0 | N | 15 | 200 | 50 | 100 | 5 | 30 | 50 | 70 |
| 80Q023BN | 1.0 | N | 10 | 150 | 50 | 50 | 50 | 30 | 50 | 100 |

Table 4 (cont).

| Sample | sc | sn | sr | v | w | y | zn | zr | th |
|---|---|---|---|---|---|---|---|---|---|
| 80Q001AN | 10 | 10 | 200 | 70 | N | 50 | <200 | 500 | N |
| 80Q001BN | 20 | 10 | 300 | 100 | 50 | 100 | <200 | >1,000 | <100 |
| 80Q002AN | 20 | 15 | 200 | 100 | <50 | 100 | 200 | 700 | N |
| 80Q002BN | 10 | 20 | 150 | 70 | N | 20 | <200 | 200 | N |
| 80Q003AN | 15 | N | 200 | 300 | N | 70 | 300 | 500 | N |
| 80Q003BN | 20 | N | 200 | 200 | N | 70 | <200 | 300 | N |
| 80Q004AN | 20 | 10 | 150 | 100 | N | 30 | N | 500 | 700 |
| 80Q004BN | 30 | N | 200 | 150 | N | 70 | N | 700 | N |
| 80Q005AN | 10 | N | 1,500 | 70 | N | 30 | 200 | 500 | N |
| 80Q006AN | 20 | 15 | 200 | 100 | <50 | 100 | N | >1,000 | <100 |
| 80Q006BN | 20 | 10 | 300 | 150 | <50 | 100 | N | >1,000 | <100 |
| 80Q007AN | 30 | N | 200 | 200 | N | 100 | N | 200 | N |
| 80Q007BN | 30 | N | 200 | 150 | N | 100 | N | 1,000 | N |
| 80Q008AN | 20 | 30 | 700 | 150 | N | 50 | <200 | 150 | N |
| 80Q008BN | 30 | <10 | 700 | 200 | N | 70 | <200 | 200 | N |
| 80Q009AN | 50 | N | 700 | 200 | N | 50 | <200 | 200 | N |
| 80Q009BN | 50 | N | 500 | 200 | N | 50 | <200 | 1,000 | N |
| 80Q010AN | 20 | N | 200 | 100 | N | 100 | 300 | >1,000 | N |
| 80Q010BN | 20 | N | 300 | 100 | N | 70 | 300 | 1,000 | <100 |
| 80Q011AN | 15 | N | 500 | 150 | N | 50 | N | >1,000 | <100 |
| 80Q011BN | 15 | N | 500 | 100 | N | 70 | N | 1,000 | N |
| 80Q012AN | 15 | 10 | 500 | 100 | N | 30 | N | >1,000 | N |
| 80Q012BN | 15 | N | 500 | 100 | N | 50 | N | 1,000 | N |
| 80Q013AN | 20 | 10 | 500 | 300 | N | 70 | <200 | >1,000 | N |
| 80Q013BN | 20 | N | 500 | 150 | N | 50 | <200 | 500 | N |
| 80Q014AN | 50 | N | 200 | 150 | N | 200 | <200 | 200 | N |
| 80Q014BN | 50 | N | 200 | 100 | N | 200 | <200 | 300 | N |
| 80Q015AN | 50 | N | 200 | 100 | N | 700 | N | 200 | <100 |
| 80Q015BN | 50 | N | 300 | 100 | <50 | 700 | N | 300 | N |
| 80Q016AN | 15 | 10 | 200 | 100 | N | 50 | N | >1,000 | N |
| 80Q016BN | 10 | N | 300 | 100 | N | 100 | N | 1,000 | N |
| 80Q017AN | 20 | N | 500 | 200 | N | 50 | 200 | >1,000 | N |
| 80Q017BN | 20 | 15 | 500 | 200 | N | 70 | 500 | 1,000 | N |
| 80Q018AN | 15 | 15 | 200 | 200 | N | 300 | 300 | >1,000 | N |
| 80Q018BN | 15 | 20 | 300 | 300 | N | 200 | 300 | >1,000 | N |
| 80Q019AN | 15 | 20 | 500 | 100 | N | 500 | N | 1,000 | <100 |
| 80Q019BN | 20 | 20 | 300 | 100 | N | 700 | N | >1,000 | 100 |
| 80Q020AN | 30 | N | 300 | 300 | N | 1,000 | N | 700 | <100 |
| 80Q020BN | 30 | N | 300 | 200 | N | 300 | N | 700 | <100 |
| 80Q021AN | 70 | N | 700 | 200 | N | 70 | N | 200 | N |
| 80Q021BN | 50 | N | 1,000 | 200 | N | 70 | N | 1,000 | N |
| 80Q022AN | 20 | N | 150 | 500 | N | 100 | 200 | 700 | N |
| 80Q022BN | 20 | N | 150 | 300 | N | 100 | 500 | 200 | N |
| 80Q023AN | 10 | <10 | 300 | 300 | N | 30 | 200 | 500 | N |
| 80Q023BN | 15 | 10 | 300 | 200 | N | 20 | 200 | 1,000 | N |

Table 4 (cont).

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q024AN | 36.596 | -105.581 | 20 | 1.0 | .5 | >1.0 | 1,000 | N | N | 1,500 |
| 80Q024BN | 36.596 | -105.581 | 15 | 1.0 | 2.0 | >1.0 | 1,000 | 2.0 | 15 | 1,000 |
| 80Q025AN | 36.647 | -105.383 | >20 | 1.0 | 1.0 | >1.0 | 700 | N | 10 | 1,000 |
| 80Q025BN | 36.647 | -105.383 | 20 | 1.0 | 2.0 | 1.0 | 1,000 | N | 10 | 700 |
| 80Q026BN | 36.679 | -105.380 | 20 | .7 | 1.0 | >1.0 | 1,500 | N | N | 1,500 |
| 80Q026BN | 36.679 | -105.380 | 20 | .7 | 1.5 | >1.0 | 700 | 5.0 | N | 1,000 |
| 80Q027AN | 36.597 | -105.582 | 15 | .7 | 1.0 | 1.0 | 700 | N | 20 | 500 |
| 80Q027BN | 36.597 | -105.582 | 15 | .7 | 1.5 | 1.0 | 700 | <.5 | 20 | 500 |
| 80Q028AN | 36.569 | -105.495 | 10 | 2.0 | 2.0 | 1.0 | 2,000 | 2.0 | 15 | 700 |
| 80Q028BN | 36.571 | -105.495 | 10 | 1.5 | 1.5 | 1.0 | 2,000 | 2.0 | 20 | 500 |
| 80Q029AN | 36.570 | -105.487 | 15 | 1.5 | 2.0 | 1.0 | 1,500 | 2.0 | <10 | 500 |
| 80Q029BN | 36.573 | -105.487 | 15 | 1.5 | 2.0 | .7 | 1,500 | 2.0 | 15 | 300 |
| 80Q030AN | 36.569 | -105.470 | 15 | 1.5 | 5.0 | 1.0 | 5,000 | .5 | 20 | 100 |
| 80Q030BN | 36.569 | -105.470 | 10 | 2.0 | 5.0 | 1.0 | 2,000 | .7 | 15 | 300 |
| 80Q031AN | 36.597 | -105.448 | 10 | 1.0 | 1.5 | 1.0 | 1,500 | N | 20 | 1,000 |
| 80Q031BN | 36.597 | -105.448 | 15 | 1.0 | 1.0 | 1.0 | 2,000 | N | 20 | 700 |
| 80Q032AN | 36.595 | -105.469 | 15 | .7 | 1.5 | .7 | 1,500 | 2.0 | 15 | 700 |
| 80Q032BN | 36.595 | -105.469 | 20 | .7 | 1.5 | 1.0 | 1,500 | 2.0 | 20 | 500 |
| 80Q033AN | 36.595 | -105.464 | 15 | .7 | 1.5 | 1.0 | 2,000 | 2.0 | 30 | 500 |
| 80Q033BN | 36.595 | -105.464 | 15 | 1.0 | 2.0 | 1.0 | 5,000 | 1.0 | 30 | 500 |
| 80Q034AN | 36.573 | -105.510 | 10 | 2.0 | 2.0 | 1.0 | 2,000 | N | 10 | 300 |
| 80Q034BN | 36.573 | -105.510 | 15 | 1.5 | 2.0 | 1.0 | 1,500 | .5 | 10 | 200 |
| 80Q035AN | 36.583 | -105.449 | 5 | 1.0 | 5.0 | >1.0 | 1,000 | N | <10 | 500 |
| 80Q035BN | 36.583 | -105.449 | 5 | 1.0 | 5.0 | >1.0 | 1,000 | .5 | 10 | 300 |
| 80Q036AN | 36.646 | -105.516 | 10 | 1.5 | 2.0 | >1.0 | 500 | .5 | 300 | 300 |
| 80Q036BN | 36.646 | -105.516 | 10 | 1.5 | 1.5 | >1.0 | 3,000 | N | 300 | 500 |
| 80Q037AN | 36.647 | -105.494 | 10 | 1.0 | 1.5 | >1.0 | 2,000 | <.5 | 200 | 200 |
| 80Q037BN | 36.647 | -105.494 | 15 | 1.0 | 2.0 | >1.0 | 5,000 | .5 | 200 | 200 |
| 80Q038AN | 36.646 | -105.516 | 15 | 1.0 | 1.0 | 1.0 | 1,000 | 5.0 | 10 | 700 |
| 80Q038BN | 36.646 | -105.494 | 20 | 1.0 | 1.0 | >1.0 | 1,500 | 7.0 | 15 | 700 |
| 80Q039AN | 36.646 | -105.515 | 10 | 1.5 | 2.0 | >1.0 | 2,000 | 2.0 | 10 | 700 |
| 80Q039BN | 36.646 | -105.515 | 10 | 1.0 | 2.0 | 1.0 | 1,500 | 1.5 | 15 | 500 |
| 80Q040AN | 36.649 | -105.518 | 15 | 1.0 | 1.5 | 1.0 | 1,500 | 1.0 | 20 | 500 |
| 80Q040BN | 36.649 | -105.518 | 15 | .7 | 1.5 | 1.0 | 1,500 | 1.5 | 30 | 1,000 |
| 80Q041AN | 36.658 | -105.515 | 20 | 2.0 | 3.0 | 1.0 | 5,000 | 2.0 | 30 | 300 |
| 80Q041BN | 36.658 | -105.516 | 20 | 2.0 | 3.0 | 1.0 | 5,000 | 2.0 | 50 | 300 |
| 80Q042AN | 36.679 | -105.443 | 20 | .7 | .7 | >1.0 | 3,000 | 2.0 | 70 | 700 |
| 80Q042BN | 36.679 | -105.443 | 20 | .5 | .7 | >1.0 | 2,000 | 2.0 | 50 | 500 |
| 80Q043AN | 36.679 | -105.445 | 20 | .7 | 1.5 | >1.0 | 3,000 | 3.0 | 100 | 700 |
| 80Q043BN | 36.679 | -105.443 | 20 | .5 | .5 | >1.0 | 3,000 | 3.0 | 70 | 500 |
| 80Q044AN | 36.559 | -105.532 | 10 | 1.5 | 3.0 | >1.0 | 2,000 | N | 10 | 200 |
| 80Q044BN | 36.559 | -105.532 | 10 | 2.0 | 3.0 | 1.0 | 1,500 | .7 | 10 | 300 |
| 80Q045AN | 36.696 | -105.576 | 15 | .7 | 1.5 | 1.0 | 1,000 | 3.0 | 10 | 700 |
| 80Q045BN | 36.696 | -105.576 | 20 | .5 | 3.0 | 1.0 | 1,000 | 5.0 | 20 | 700 |
| 80Q046AN | 36.696 | -105.576 | >20 | .3 | 1.5 | 1.0 | 700 | 10.0 | N | 700 |

Table 4 (cont).

| Sample | be | bi | co | cr | cu | la | mo | nb | ni | pb |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q024AN | N | N | 30 | 200 | 50 | 70 | N | <20 | 50 | 70 |
| 80Q024BN | <1.0 | N | 50 | 150 | 100 | 150 | 7 | 30 | 100 | 100 |
| 80Q025AN | <1.0 | N | 20 | 100 | 70 | 150 | <5 | <20 | 70 | 50 |
| 80Q025BN | <1.0 | N | 30 | 100 | 50 | 150 | 10 | <20 | 70 | 70 |
| 80Q026BN | <1.0 | N | 30 | 200 | 50 | 200 | 5 | 30 | 70 | 70 |
| 80Q026BN | <1.0 | 10 | 50 | 200 | 100 | 200 | 7 | 30 | 100 | 100 |
| 80Q027AN | <1.0 | N | 20 | 200 | 30 | 200 | 10 | 50 | 70 | 50 |
| 80Q027BN | <1.0 | N | 20 | 150 | 50 | 200 | 7 | 20 | 50 | 70 |
| 80Q028AN | 1.0 | 50 | 50 | 100 | 150 | 200 | 50 | 100 | 50 | 100 |
| 80Q028BN | 1.0 | 30 | 30 | 100 | 150 | 200 | 70 | 100 | 70 | 300 |
| 80Q029AN | 1.0 | 15 | 30 | 100 | 30 | 200 | 5 | 30 | 50 | 70 |
| 80Q029BN | <1.0 | N | 50 | 70 | 50 | 200 | 5 | 20 | 50 | 100 |
| 80Q030AN | <1.0 | 10 | 30 | 100 | 100 | 100 | 10 | 50 | 50 | 150 |
| 80Q030BN | 1.0 | 10 | 30 | 100 | 70 | 200 | 30 | 30 | 50 | 100 |
| 80Q031AN | 1.0 | N | 20 | 100 | 30 | 150 | <5 | 20 | 30 | 70 |
| 80Q031BN | 1.0 | 20 | 30 | 100 | 70 | 200 | 7 | 30 | 50 | 150 |
| 80Q032AN | <1.0 | N | 20 | 50 | 50 | 150 | <5 | 20 | 20 | 70 |
| 80Q032BN | 1.0 | N | 20 | 70 | 50 | 200 | <5 | 20 | 30 | 150 |
| 80Q033AN | 1.0 | 200 | 20 | 100 | 70 | 200 | N | 20 | 30 | 100 |
| 80Q033BN | 1.0 | 200 | 15 | 70 | 70 | 200 | 10 | <20 | 20 | 150 |
| 80Q034AN | <1.0 | N | 30 | 50 | 70 | 300 | 30 | 50 | 30 | 300 |
| 80Q034BN | <1.0 | 10 | 30 | 100 | 70 | 300 | 70 | 70 | 70 | 500 |
| 80Q035AN | <1.0 | N | 20 | 50 | 15 | 500 | 10 | 70 | 20 | 100 |
| 80Q035BN | <1.0 | N | 20 | 50 | 10 | 300 | 10 | 50 | 15 | 100 |
| 80Q036AN | <1.0 | N | 30 | 70 | 100 | 50 | 5 | 20 | 30 | 50 |
| 80Q036BN | <1.0 | N | 20 | 100 | 30 | 20 | N | 20 | 50 | 30 |
| 80Q037AN | N | N | 30 | 70 | 30 | 50 | N | 20 | 30 | 50 |
| 80Q037BN | N | N | 50 | 100 | 70 | 30 | N | <20 | 30 | 50 |
| 80Q038AN | 1.0 | 30 | 30 | 100 | 100 | 200 | 10 | 50 | 50 | 150 |
| 80Q038BN | <1.0 | 10 | 50 | 100 | 200 | 200 | 7 | 30 | 50 | 200 |
| 80Q039AN | N | 100 | 30 | 100 | 70 | 500 | 20 | 30 | 50 | 500 |
| 80Q039BN | <1.0 | 10 | 20 | 70 | 70 | 300 | 30 | 50 | 30 | 300 |
| 80Q040AN | 1.0 | <10 | 50 | 100 | 100 | 1,000 | 10 | 70 | 50 | 200 |
| 80Q040BN | 1.0 | <10 | 30 | 70 | 100 | 500 | 20 | 70 | 50 | 300 |
| 80Q041AN | <1.0 | 15 | 30 | 150 | 70 | 150 | 7 | <20 | 70 | 200 |
| 80Q041BN | 1.0 | 10 | 50 | 150 | 70 | 150 | 7 | 30 | 70 | 200 |
| 80Q042AN | 1.0 | N | 50 | 100 | 70 | 150 | 7 | 50 | 50 | 150 |
| 80Q042BN | 1.0 | N | 50 | 70 | 100 | 150 | 7 | 30 | 50 | 100 |
| 80Q043AN | 1.0 | N | 20 | 100 | 100 | 100 | 7 | 30 | 50 | 70 |
| 80Q043BN | <1.0 | N | 30 | 100 | 70 | 150 | 7 | 20 | 30 | 100 |
| 80Q044AN | <1.0 | N | 30 | 100 | 20 | 700 | 30 | 70 | 50 | 200 |
| 80Q044BN | <1.0 | 15 | 30 | 70 | 50 | 500 | 50 | 50 | 70 | 200 |
| 80Q045AN | 5.0 | 20 | 30 | 100 | 500 | 200 | 500 | 20 | 100 | 200 |
| 80Q045BN | 2.0 | 30 | 50 | 100 | 300 | 200 | 700 | 30 | 100 | 200 |
| 80Q046AN | 1.5 | 100 | 100 | 150 | 700 | 200 | 1,000 | 30 | 200 | 1,000 |

Table 4 (cont).

| Sample | sc | sn | sr | v | w | y | zn | zr | th |
|---|---|---|---|---|---|---|---|---|---|
| 80Q024AN | 20 | 15 | 150 | 500 | N | 50 | 300 | 1,000 | N |
| 80Q024BN | 20 | N | 200 | 300 | N | 100 | N | >1,000 | N |
| 80Q025AN | 20 | N | 500 | 300 | N | 30 | 200 | 700 | N |
| 80Q025BN | 20 | <10 | 500 | 300 | N | 50 | 200 | 300 | N |
| 80Q026BN | 20 | 10 | 150 | 700 | N | 100 | 300 | 1,000 | N |
| 80Q026BN | 15 | N | 200 | 300 | <50 | 100 | <200 | >1,000 | N |
| 80Q027AN | 20 | N | 150 | 200 | N | 100 | N | >1,000 | N |
| 80Q027BN | 20 | <10 | 200 | 200 | N | 70 | N | >1,000 | N |
| 80Q028AN | 50 | 10 | 200 | 150 | 50 | 100 | N | >1,000 | N |
| 80Q028BN | 50 | 20 | 100 | 100 | 100 | 100 | 200 | 500 | <100 |
| 80Q029AN | 20 | N | 500 | 200 | <50 | 150 | N | >1,000 | N |
| 80Q029BN | 30 | N | 300 | 150 | N | 100 | N | 1,000 | N |
| 80Q030AN | 70 | N | 1,000 | 200 | 100 | 100 | <200 | 700 | N |
| 80Q030BN | 30 | N | 700 | 200 | 150 | 100 | <200 | 500 | N |
| 80Q031AN | 20 | N | 300 | 150 | N | 150 | N | >1,000 | <100 |
| 80Q031BN | 30 | 10 | 200 | 200 | N | 150 | <200 | >1,000 | N |
| 80Q032AN | 20 | N | 300 | 100 | N | 100 | N | >1,000 | N |
| 80Q032BN | 50 | 15 | 200 | 150 | <50 | 200 | N | >1,000 | N |
| 80Q033AN | 50 | N | 300 | 150 | N | 150 | <200 | >1,000 | N |
| 80Q033BN | 50 | N | 500 | 200 | N | 150 | <200 | >1,000 | N |
| 80Q034AN | 30 | N | 500 | 150 | N | 70 | <200 | >1,000 | N |
| 80Q034BN | 30 | 10 | 300 | 200 | <50 | 70 | N | 1,000 | 100 |
| 80Q035AN | 30 | 20 | 500 | 100 | N | 150 | N | >1,000 | 100 |
| 80Q035BN | 20 | 20 | 500 | 100 | N | 150 | <200 | 1,000 | 100 |
| 80Q036AN | 50 | N | 200 | 100 | N | 70 | 200 | 700 | N |
| 80Q036BN | 20 | N | 200 | 200 | <50 | 100 | N | 700 | N |
| 80Q037AN | 30 | N | 200 | 150 | N | 50 | <200 | 200 | N |
| 80Q037BN | 30 | N | 300 | 150 | N | 70 | 500 | 150 | N |
| 80Q038AN | 20 | N | 200 | 150 | 150 | 100 | <200 | >1,000 | N |
| 80Q038BN | 20 | <10 | 200 | 150 | <50 | 100 | <200 | 1,000 | N |
| 80Q039AN | 50 | 15 | 200 | 100 | <50 | 200 | <200 | >1,000 | N |
| 80Q039BN | 30 | 20 | 200 | 100 | 50 | 100 | N | >1,000 | N |
| 80Q040AN | 50 | 20 | 200 | 150 | 50 | 150 | 200 | >1,000 | <100 |
| 80Q040BN | 30 | 15 | 150 | 100 | <50 | 100 | <200 | 1,000 | 200 |
| 80Q041AN | 30 | 10 | 300 | 200 | N | 150 | 200 | 1,000 | N |
| 80Q041BN | 30 | N | 500 | 200 | N | 150 | 200 | >1,000 | N |
| 80Q042AN | 20 | 15 | 100 | 200 | N | 150 | N | >1,000 | N |
| 80Q042BN | 20 | N | 150 | 100 | N | 200 | 200 | >1,000 | N |
| 80Q043AN | 20 | N | 100 | 300 | N | 150 | 200 | >1,000 | N |
| 80Q043BN | 20 | 10 | 100 | 200 | N | 100 | 300 | >1,000 | N |
| 80Q044AN | 50 | 15 | 200 | 150 | <50 | 100 | N | >1,000 | 300 |
| 80Q044BN | 50 | 20 | 200 | 200 | N | 100 | <200 | 1,000 | 150 |
| 80Q045AN | 20 | 15 | 500 | 100 | <50 | 50 | <200 | 700 | N |
| 80Q045BN | 20 | 15 | 700 | 150 | 50 | 50 | 200 | >1,000 | N |
| 80Q046AN | 20 | 15 | 200 | 150 | 200 | 70 | 200 | >1,000 | N |

Table 4 (cont).

| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q046BN | 36.696 | -105.576 | 20 | .3 | .7 | 1.0 | 700 | .7 | N | 500 |
| 80Q047AN | 36.577 | -105.581 | 20 | 1.5 | 1.5 | >1.0 | 1,000 | 7.0 | 10 | 3,000 |
| 80Q047BN | 36.577 | -105.581 | 20 | 1.0 | 1.5 | >1.0 | 1,000 | 10.0 | <10 | 2,000 |
| 80Q101AN | 36.518 | -105.536 | 10 | 2.0 | 3.0 | 1.0 | 1,500 | N | 20 | 700 |
| 80Q101BN | 36.518 | -105.536 | 10 | 2.0 | 2.0 | 1.0 | 5,000 | N | 20 | 150 |
| 80Q102AN | 36.539 | -105.563 | 15 | 5.0 | 3.0 | 1.0 | 2,000 | 1.5 | <10 | 200 |
| 80Q102BN | 36.539 | -105.536 | 20 | 3.0 | 2.0 | >1.0 | 1,500 | 1.5 | N | 200 |
| 80Q103AN | 36.594 | -105.447 | 10 | 1.5 | 10.0 | 1.0 | 2,000 | 1.0 | 500 | 200 |
| 80Q103BN | 36.594 | -105.447 | 15 | 1.0 | 3.0 | 1.0 | 1,500 | 1.0 | 20 | 200 |
| 80Q104AN | 36.598 | -105.481 | 15 | .7 | 2.0 | >1.0 | 1,000 | 5.0 | <10 | 500 |
| 80Q104BN | 36.598 | -105.481 | 15 | .7 | 5.0 | >1.0 | 100 | 5.0 | <10 | 300 |
| 80Q105AN | 36.599 | -105.480 | 20 | 1.0 | 1.5 | 1.0 | >5,000 | 10.0 | 100 | 700 |
| 80Q105BN | 36.599 | -105.480 | 20 | .7 | .7 | .7 | 3,000 | 15.0 | 30 | 1,000 |
| 80Q106AN | 36.553 | -105.537 | 10 | 1.0 | 5.0 | >1.0 | 1,500 | .5 | 10 | 150 |
| 80Q106BN | 36.553 | -105.537 | 7 | 1.0 | 5.0 | >1.0 | 1,500 | N | <10 | 100 |
| 80Q107AN | 36.812 | -105.513 | 20 | 1.0 | 3.0 | >1.0 | 500 | N | <10 | 100 |
| 80Q107BN | 36.812 | -105.513 | >20 | .7 | 1.0 | >1.0 | 2,000 | N | N | 100 |
| 80Q107CN | 36.812 | -105.546 | 20 | .5 | .5 | >1.0 | 3,000 | N | N | 50 |
| 80Q107DN | 36.812 | -105.513 | 20 | .7 | 1.5 | >1.0 | 3,000 | N | <10 | 100 |
| 80Q108AN | 36.769 | -105.566 | 7 | .5 | .2 | >1.0 | 1,500 | N | 500 | 200 |
| 80Q108BN | 36.752 | -105.566 | 7 | .3 | .5 | >1.0 | 1,500 | N | 300 | 100 |
| 80Q109AN | 36.796 | -105.553 | >20 | .5 | .5 | >1.0 | 5,000 | 1.0 | N | 100 |
| 80Q109BN | 36.796 | -105.553 | >20 | .5 | .7 | >1.0 | 3,000 | N | N | 70 |
| 80Q110AN | 36.787 | -105.557 | 15 | 1.5 | 1.0 | >1.0 | >5,000 | N | 100 | 200 |
| 80Q110BN | 36.787 | -105.557 | 10 | 1.5 | 1.0 | >1.0 | >5,000 | N | 200 | 200 |
| 80Q110CN | 36.787 | -105.557 | 15 | 1.5 | 1.5 | >1.0 | >5,000 | N | 150 | 200 |
| 80Q110DN | 36.787 | -105.557 | 10 | 1.5 | 1.0 | 1.0 | 5,000 | N | 150 | 150 |
| 80Q111AN | 36.557 | -105.535 | 10 | 2.0 | 2.0 | 1.0 | 500 | N | 10 | 200 |
| 80Q111BN | 36.557 | -105.535 | 10 | 2.0 | 3.0 | >1.0 | 5,000 | N | <10 | 200 |
| 80Q112AN | 36.615 | -105.611 | 20 | 1.0 | 1.0 | 1.0 | 1,000 | 5.0 | 15 | 700 |
| 80Q112BN | 36.615 | -105.611 | 20 | 1.0 | 1.5 | >1.0 | 1,500 | 2.0 | 20 | 500 |
| 80Q113AN | 36.645 | -105.536 | 20 | 1.0 | 1.5 | .7 | 1,500 | 3.0 | 30 | 700 |
| 80Q113BN | 36.595 | -105.586 | 10 | 1.0 | 1.5 | .7 | 2,000 | 2.0 | 30 | 700 |
| 80Q114AN | 36.697 | -105.482 | 20 | 2.0 | 3.0 | 1.0 | 2,000 | 3.0 | 30 | 300 |
| 80Q114BN | 36.697 | -105.482 | 10 | 2.0 | 2.0 | .7 | 2,000 | .5 | 30 | 700 |
| 80Q115AN | 36.694 | -105.496 | 20 | 3.0 | 3.0 | >1.0 | 5,000 | 1.0 | 20 | 700 |
| 80Q115BN | 36.694 | -105.496 | 15 | 5.0 | 3.0 | 1.0 | 2,000 | 1.0 | 30 | 200 |
| 80Q116AN | 36.684 | -105.508 | 15 | 2.0 | 3.0 | .7 | 1,500 | 3.0 | 20 | 200 |
| 80Q116BN | 36.684 | -105.508 | 15 | 3.0 | 2.0 | .7 | 2,000 | 2.0 | 20 | 200 |
| 80Q117AN | 36.685 | -105.543 | 20 | .7 | 1.0 | >1.0 | 2,000 | 5.0 | 10 | 500 |
| 80Q117BN | 36.685 | -105.543 | >20 | .7 | .7 | >1.0 | 5,000 | 5.0 | <10 | 300 |
| 80Q118AN | 36.698 | -105.550 | 15 | .7 | .7 | 1.0 | 700 | N | 100 | 1,000 |
| 80Q118BN | 36.698 | -105.550 | 20 | .5 | .5 | >1.0 | 1,000 | N | 10 | 1,000 |
| 80Q119BN | 36.772 | -105.388 | 15 | .7 | 1.0 | 1.0 | 500 | N | 15 | 700 |
| 80Q120AN | 36.767 | -105.393 | 20 | 1.0 | .5 | >1.0 | 1,000 | .7 | <10 | 500 |

Table 4 (cont).

| Sample | be | bi | co | cr | cu | la | mo | nb | ni | pb |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q046BN | 1.5 | 100 | 100 | 150 | 700 | 150 | 500 | 20 | 200 | 500 |
| 80Q047AN | <1.0 | N | 70 | 100 | 500 | 200 | 15 | 20 | 150 | 200 |
| 80Q047BN | <1.0 | <10 | 70 | 100 | 500 | 200 | 20 | 20 | 100 | 300 |
| 80Q101AN | 1.0 | <10 | 30 | 70 | 50 | 500 | 7 | 70 | 50 | 30 |
| 80Q101BN | <1.0 | <10 | 30 | 100 | 50 | 700 | <5 | 100 | 50 | 30 |
| 80Q102AN | N | N | 50 | 100 | 100 | 150 | 7 | 20 | 100 | 50 |
| 80Q102BN | 1.0 | N | 70 | 150 | 150 | 200 | 7 | 30 | 100 | 100 |
| 80Q103AN | <1.0 | N | 30 | 150 | 150 | 100 | N | 20 | 50 | 70 |
| 80Q103BN | N | N | 50 | 100 | 500 | 100 | <5 | <20 | 50 | 100 |
| 80Q104AN | <1.0 | N | 30 | 70 | 70 | 700 | 50 | 70 | 30 | 700 |
| 80Q104BN | <1.0 | N | 30 | 70 | 100 | 1,000 | 30 | 70 | 30 | 1,000 |
| 80Q105AN | 1.0 | 200 | 50 | 70 | 200 | 200 | 5 | 50 | 50 | 200 |
| 80Q105BN | 1.0 | 300 | 50 | 50 | 150 | 300 | 7 | 50 | 30 | 150 |
| 80Q106AN | <1.0 | 10 | 30 | 70 | 50 | 700 | 10 | 70 | 30 | 30 |
| 80Q106BN | <1.0 | N | 20 | 70 | 70 | 1,000 | 10 | 150 | 20 | 20 |
| 80Q107AN | 1.0 | N | 20 | 150 | 20 | 500 | N | 20 | 50 | 30 |
| 80Q107BN | <1.0 | N | 30 | 200 | 15 | 300 | <5 | 50 | 50 | 50 |
| 80Q107CN | N | N | 30 | 300 | 20 | 500 | N | 20 | 70 | 50 |
| 80Q107DN | <1.0 | N | 30 | 200 | 20 | 500 | N | 50 | 70 | 50 |
| 80Q108AN | 1.0 | N | 10 | 100 | 100 | 500 | 10 | 100 | N | 70 |
| 80Q108BN | <1.0 | N | 10 | 100 | 15 | 300 | 7 | 150 | 15 | 50 |
| 80Q109AN | <1.0 | N | 20 | 200 | 15 | 500 | N | 30 | 30 | 70 |
| 80Q109DN | <1.0 | N | 20 | 200 | 10 | 500 | N | 50 | 50 | 50 |
| 80Q110AN | <1.0 | N | 20 | 100 | 20 | 700 | 5 | 150 | 30 | 100 |
| 80Q110BN | 1.5 | N | 20 | 100 | 20 | >1,000 | N | 150 | 20 | 100 |
| 80Q110CN | 1.5 | N | 20 | 150 | 20 | 1,000 | 10 | 200 | 50 | 70 |
| 80Q110DN | <1.0 | N | 20 | 70 | 20 | 700 | 10 | 100 | 50 | 100 |
| 80Q111AN | <1.0 | N | 30 | 100 | 70 | 700 | 10 | 100 | 70 | 50 |
| 80Q111BN | 1.0 | N | 30 | 100 | 50 | 500 | 15 | 100 | 70 | 70 |
| 80Q112AN | <1.0 | <10 | 50 | 200 | 50 | 150 | 10 | 50 | 70 | 150 |
| 80Q112BN | <1.0 | N | 50 | 150 | 100 | 100 | 5 | 70 | 70 | 150 |
| 80Q113AN | 1.5 | 15 | 50 | 100 | 100 | 300 | 15 | 150 | 50 | 200 |
| 80Q113BN | 1.0 | <10 | 30 | 70 | 70 | 150 | 10 | 100 | 30 | 150 |
| 80Q114AN | 1.0 | N | 50 | 150 | 70 | 100 | 50 | 20 | 150 | 500 |
| 80Q114BN | 1.0 | N | 20 | 100 | 100 | 70 | 50 | N | 70 | 100 |
| 80Q115AN | 1.0 | N | 50 | 100 | 100 | 200 | 150 | 20 | 100 | 200 |
| 80Q115BN | 1.0 | N | 50 | 150 | 100 | 150 | 50 | 50 | 150 | 200 |
| 80Q116AN | 1.0 | 15 | 50 | 150 | 150 | 150 | 70 | 30 | 100 | 700 |
| 80Q116BN | 1.0 | 70 | 50 | 150 | 100 | 150 | 100 | 30 | 150 | 300 |
| 80Q117AN | 1.5 | 20 | 50 | 70 | 100 | 500 | 30 | 50 | 70 | 300 |
| 80Q117BN | <1.0 | 70 | 50 | 50 | 200 | 500 | 50 | 50 | 50 | 500 |
| 80Q118AN | 1.0 | N | 30 | 200 | 50 | 70 | <5 | 30 | 10 | 70 |
| 80Q118BN | <1.0 | N | 30 | 500 | 70 | 70 | N | 30 | 100 | 50 |
| 80Q119BN | <1.0 | N | 20 | 200 | 30 | 70 | N | 20 | 50 | 50 |
| 80Q120AN | <1.0 | N | 30 | 500 | 70 | 150 | 30 | <20 | 150 | 100 |

Table 4 (cont).

| Sample | sc | sn | sr | v | w | y | zn | zr | th |
|---|---|---|---|---|---|---|---|---|---|
| 80Q046BN | 20 | 20 | 200 | 150 | 100 | 70 | 200 | >1,000 | N |
| 80Q047AN | 20 | 10 | 200 | 150 | N | 100 | 300 | 1,000 | N |
| 80Q047BN | 20 | 15 | 200 | 150 | <50 | 70 | 200 | 1,000 | N |
| 80Q101AN | 50 | 15 | 200 | 150 | N | 70 | N | 300 | <100 |
| 80Q101BN | 70 | 20 | 150 | 150 | N | 150 | <200 | 300 | <100 |
| 80Q102AN | 50 | N | 150 | 200 | N | 70 | <200 | 300 | N |
| 80Q102BN | 20 | N | 200 | 200 | N | 100 | <200 | 1,000 | N |
| 80Q103AN | 70 | N | 700 | 300 | N | 100 | N | 500 | N |
| 80Q103BN | 70 | N | 700 | 200 | N | 70 | N | 500 | N |
| 80Q104AN | 30 | 15 | 200 | 150 | N | 200 | 200 | >1,000 | 150 |
| 80Q104BN | 20 | 15 | 200 | 150 | N | 150 | <200 | >1,000 | 200 |
| 80Q105AN | 50 | N | 200 | 100 | <50 | 300 | <200 | >1,000 | N |
| 80Q105BN | 20 | N | 150 | 100 | 150 | 200 | <200 | >1,000 | N |
| 80Q106AN | 50 | 50 | 200 | 150 | N | 150 | <200 | 150 | <100 |
| 80Q106BN | 50 | 20 | 200 | 150 | N | 200 | N | 1,000 | 150 |
| 80Q107AN | 50 | 20 | 200 | 200 | N | 500 | 200 | 500 | N |
| 80Q107BN | 30 | 30 | 150 | 300 | N | 700 | 200 | >1,000 | 100 |
| 80Q107CN | 50 | 30 | <100 | 150 | N | 500 | 300 | 500 | <100 |
| 80Q107DN | 30 | 30 | 150 | 300 | N | 700 | 200 | >1,000 | <100 |
| 80Q108AN | 50 | 20 | N | 300 | N | 500 | 200 | >1,000 | N |
| 80Q108BN | 30 | 30 | N | 300 | N | 300 | <200 | >1,000 | 300 |
| 80Q109AN | 50 | 70 | 100 | 200 | N | 1,000 | 300 | 300 | <100 |
| 80Q109BN | 30 | 50 | N | 200 | N | 700 | 300 | 1,000 | <100 |
| 80Q110AN | 70 | 70 | 150 | 100 | N | 500 | <200 | 1,000 | 150 |
| 80Q110BN | 70 | 70 | N | 100 | N | 700 | 200 | >1,000 | <100 |
| 80Q110CN | 70 | 70 | 200 | 100 | N | 300 | 200 | >1,000 | 500 |
| 80Q110DN | 70 | 50 | 150 | 100 | N | 150 | <200 | 1,000 | 300 |
| 80Q111AN | 70 | 10 | 100 | 100 | <50 | 150 | <200 | 1,000 | 150 |
| 80Q111BN | 50 | N | 100 | 150 | <50 | 150 | <200 | >1,000 | 200 |
| 80Q112AN | 50 | 10 | 200 | 200 | N | 200 | 200 | 1,000 | N |
| 80Q112BN | 20 | 15 | 200 | 300 | N | 150 | <200 | >1,000 | N |
| 80Q113AN | 20 | N | 300 | 100 | 50 | 150 | 200 | >1,000 | N |
| 80Q113BN | 30 | N | 300 | 100 | <50 | 100 | <200 | 1,000 | N |
| 80Q114AN | 50 | N | 500 | 200 | N | 100 | 300 | 1,000 | N |
| 80Q114BN | 30 | N | 300 | 150 | N | 30 | N | 100 | N |
| 80Q115AN | 50 | 15 | 200 | 150 | N | 70 | 200 | 1,000 | N |
| 80Q115BN | 50 | 15 | 300 | 200 | N | 100 | 200 | 500 | N |
| 80Q116AN | 30 | 10 | 300 | 200 | N | 70 | 200 | 500 | N |
| 80Q116BN | 50 | 10 | 300 | 200 | <50 | 70 | 200 | 300 | N |
| 80Q117AN | 20 | N | 100 | 150 | N | 200 | <200 | >1,000 | <100 |
| 80Q117BN | 30 | 10 | N | 150 | N | 200 | 200 | >1,000 | N |
| 80Q118AN | 10 | N | 300 | 200 | N | 50 | 200 | 1,000 | N |
| 80Q118BN | 20 | N | 200 | 150 | N | 30 | 200 | >1,000 | N |
| 80Q119BN | 15 | N | 300 | 200 | N | 30 | <200 | 1,000 | N |
| 80Q120AN | 20 | N | 300 | 300 | N | 50 | 200 | 700 | N |

Table 4 (cont).

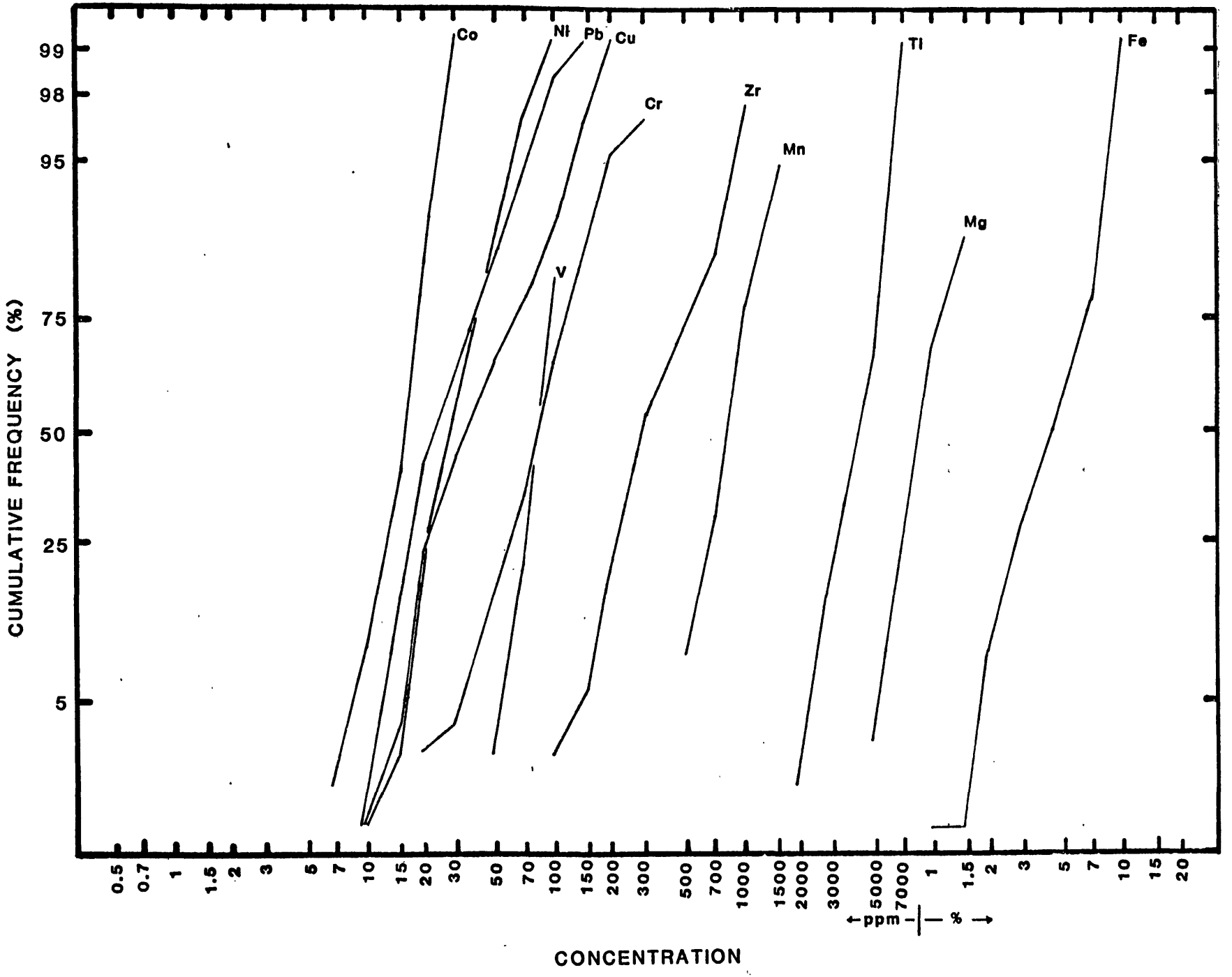
| Sample | Lat | Long | fe | mg | ca | ti | mn | ag | b | ba |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q120BN | 36.767 | -105.393 | 20 | 1.0 | .7 | 1.0 | 1,000 | N | <10 | 700 |
| 80Q121AN | 36.764 | -105.407 | 20 | 1.0 | 2.0 | 1.0 | 1,000 | N | 15 | 500 |
| 80Q121BN | 36.764 | -105.407 | 20 | 1.0 | 1.5 | 1.0 | 1,500 | N | 10 | 500 |
| 80Q122AN | 36.754 | -105.434 | 15 | .7 | 1.0 | 1.0 | 2,000 | 2.0 | 30 | 300 |
| 80Q122BN | 36.754 | -105.438 | 15 | .7 | 1.0 | 1.0 | 5,000 | <.5 | 30 | 200 |
| 80Q123AN | 36.736 | -105.516 | 20 | .7 | .5 | >1.0 | >5,000 | N | 50 | 100 |
| 80Q123BN | 36.694 | -105.516 | 20 | 1.0 | .3 | >1.0 | >5,000 | N | 50 | 150 |
| 80Q124AN | 36.731 | -105.544 | 7 | .5 | .5 | .5 | 700 | 2.0 | 100 | 200 |
| 80Q124BN | 36.731 | -105.544 | 15 | .5 | 1.0 | 1.0 | 2,000 | 3.0 | 150 | 700 |

| Sample | be | bi | co | cr | cu | la | mo | nb | ni | pb |
|---|---|---|---|---|---|---|---|---|---|---|
| 80Q120BN | <1.0 | N | 20 | 500 | 100 | 150 | 7 | 20 | 100 | 150 |
| 80Q121AN | 1.0 | N | 50 | 50 | 150 | 150 | 10 | <20 | 150 | 150 |
| 80Q121BN | 1.0 | N | 30 | 500 | 100 | 200 | 15 | 20 | 150 | 100 |
| 80Q122AN | <1.0 | 20 | 20 | 70 | 70 | 200 | 7 | 50 | 30 | 70 |
| 80Q122BN | <1.0 | N | 20 | 100 | 50 | 200 | 7 | 50 | 30 | 100 |
| 80Q123AN | N | N | 20 | 100 | 20 | 1,000 | N | 50 | 20 | 50 |
| 80Q123BN | N | N | 20 | 70 | 30 | 1,000 | N | 50 | 20 | 50 |
| 80Q124AN | <1.0 | N | 15 | 30 | 15 | 200 | N | <20 | 10 | 70 |
| 80Q124BN | <1.0 | N | 20 | 50 | 70 | >1,000 | N | <20 | 30 | 200 |

| Sample | sc | sn | sr | v | w | y | zn | zr | th |
|---|---|---|---|---|---|---|---|---|---|
| 80Q120BN | 20 | N | 500 | 500 | N | 50 | 200 | 1,000 | 100 |
| 80Q121AN | 20 | 15 | 500 | 500 | N | 100 | <200 | >1,000 | N |
| 80Q121BN | 20 | 15 | 500 | 300 | N | 100 | <200 | >1,000 | N |
| 80Q122AN | 50 | N | 300 | 150 | 50 | 500 | <200 | 500 | N |
| 80Q122BN | 30 | N | 200 | 100 | N | 500 | 200 | 500 | N |
| 80Q123AN | 70 | N | N | 150 | N | 500 | 200 | 700 | <100 |
| 80Q123BN | 50 | N | N | 150 | N | 1,000 | <200 | 700 | <100 |
| 80Q124AN | 10 | N | N | 70 | N | 150 | N | 300 | <100 |
| 80Q124BN | 50 | N | N | 70 | N | 2,000 | N | 1,000 | 200 |

CUMULATIVE FREQUENCY DIAGRAMS FOR

FIGURE 1a FINE FRACTION OF STREAM SEDIMENT SAMPLES



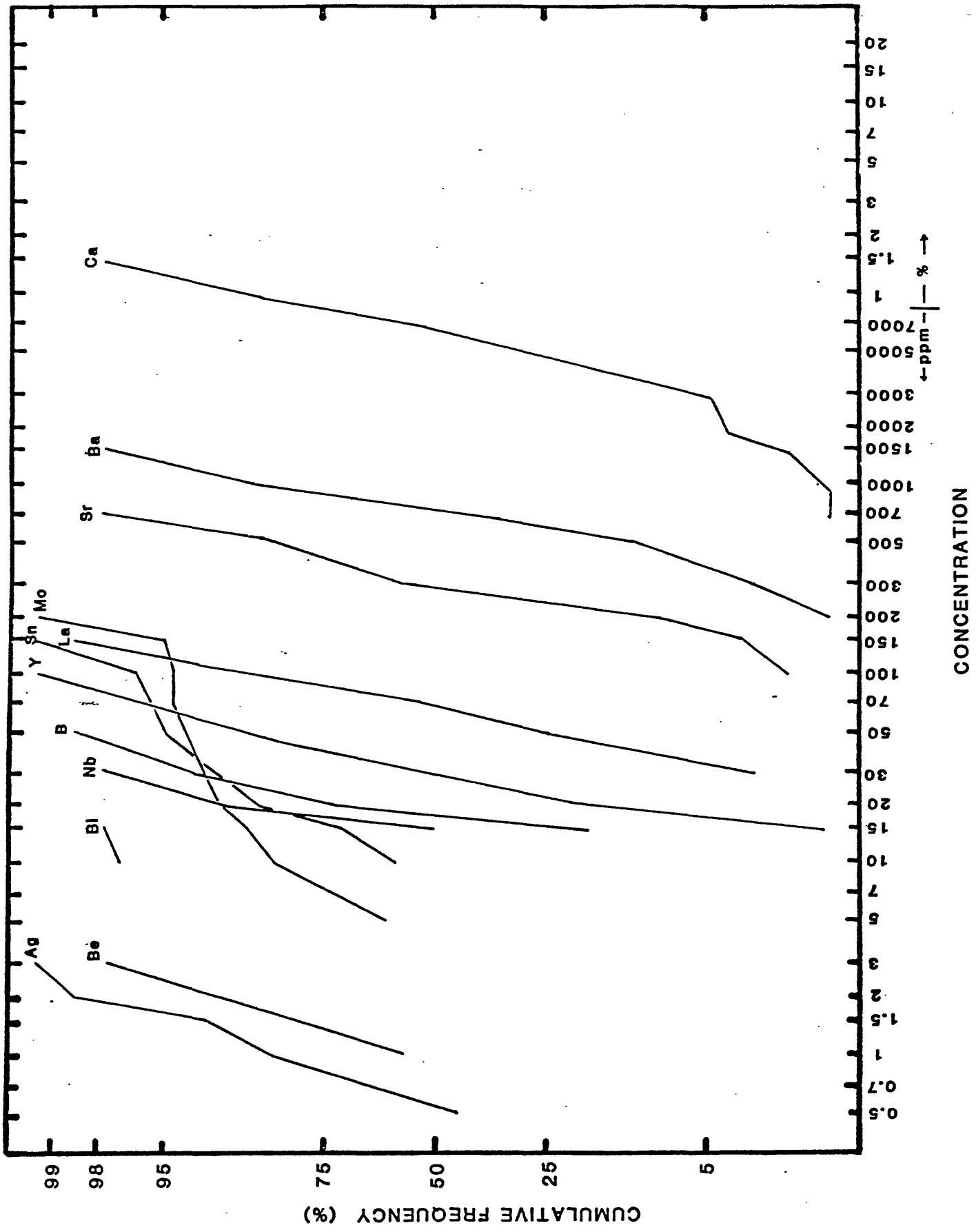
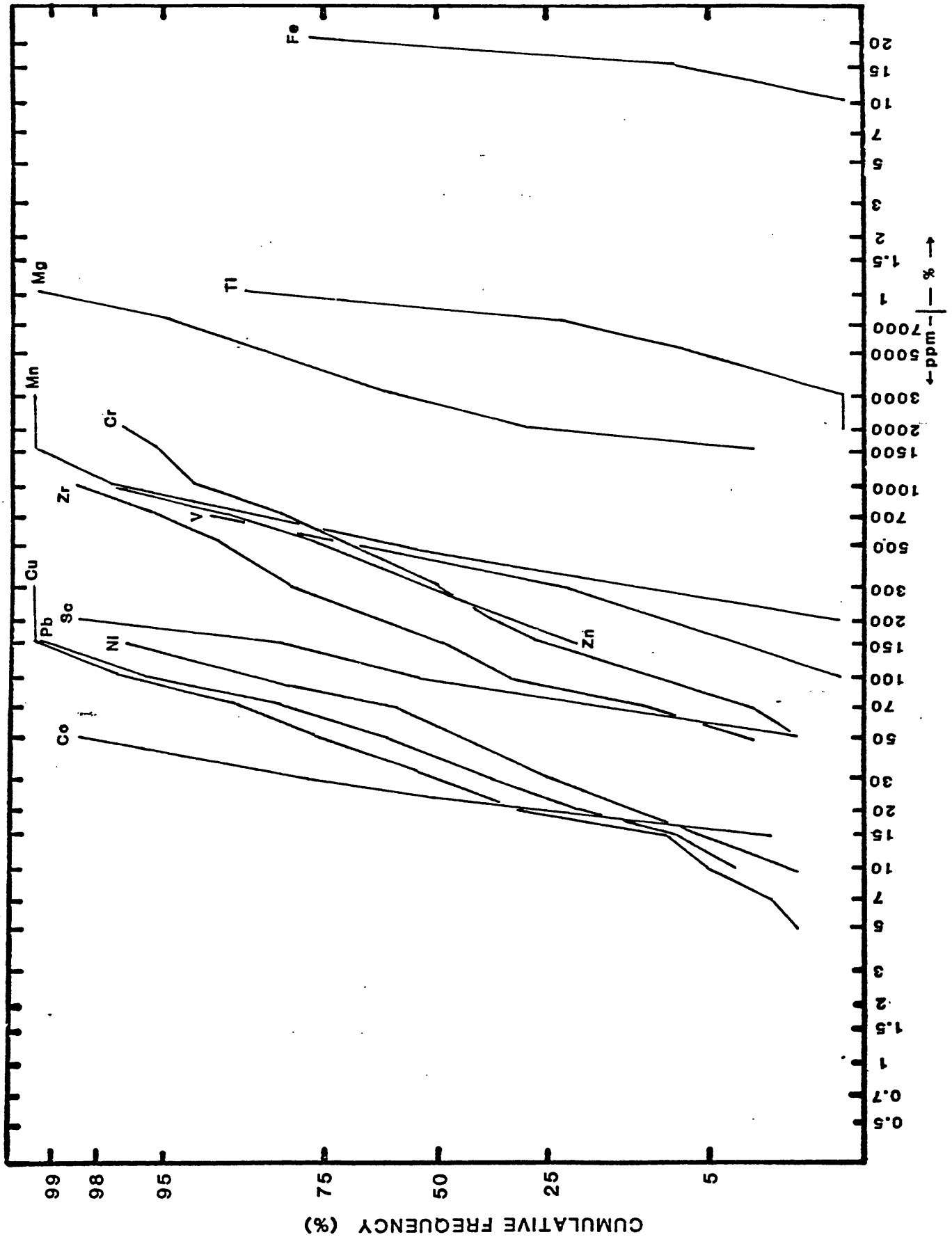



FIGURE 1b CUMULATIVE FREQUENCY DIAGRAMS FOR FINE FRACTION OF STREAM SEDIMENT SAMPLES

FIGURE 2a CUMULATIVE FREQUENCY DIAGRAMS FOR MAGNETIC FRACTION OF HEAVY-MINERAL CONCENTRATES FROM STREAM SEDIMENTS



CUMULATIVE FREQUENCY DIAGRAMS FOR

FIGURE 2b MAGNETIC FRACTION OF HEAVY-MINERAL CONCENTRATES FROM STREAM SEDIMENTS

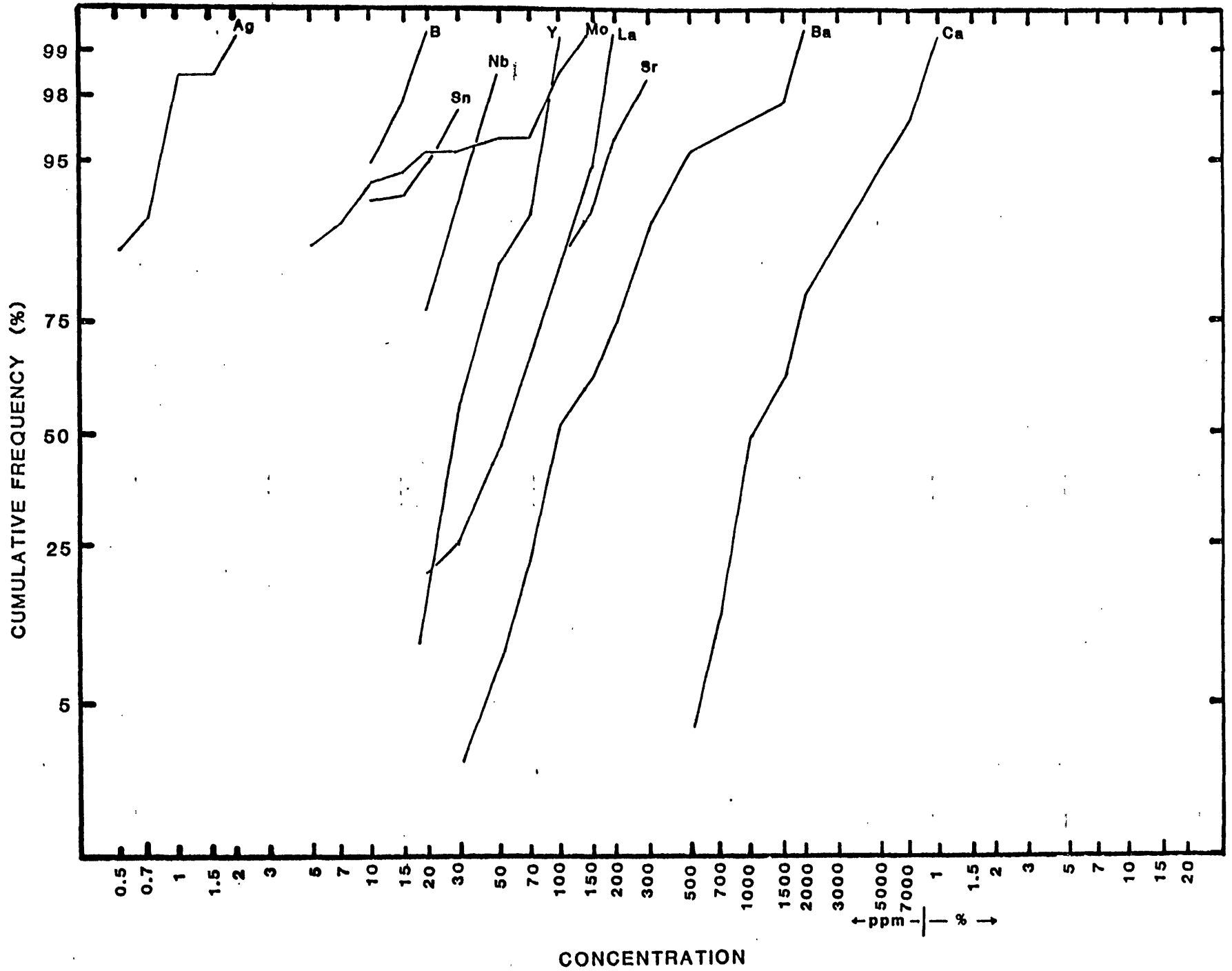
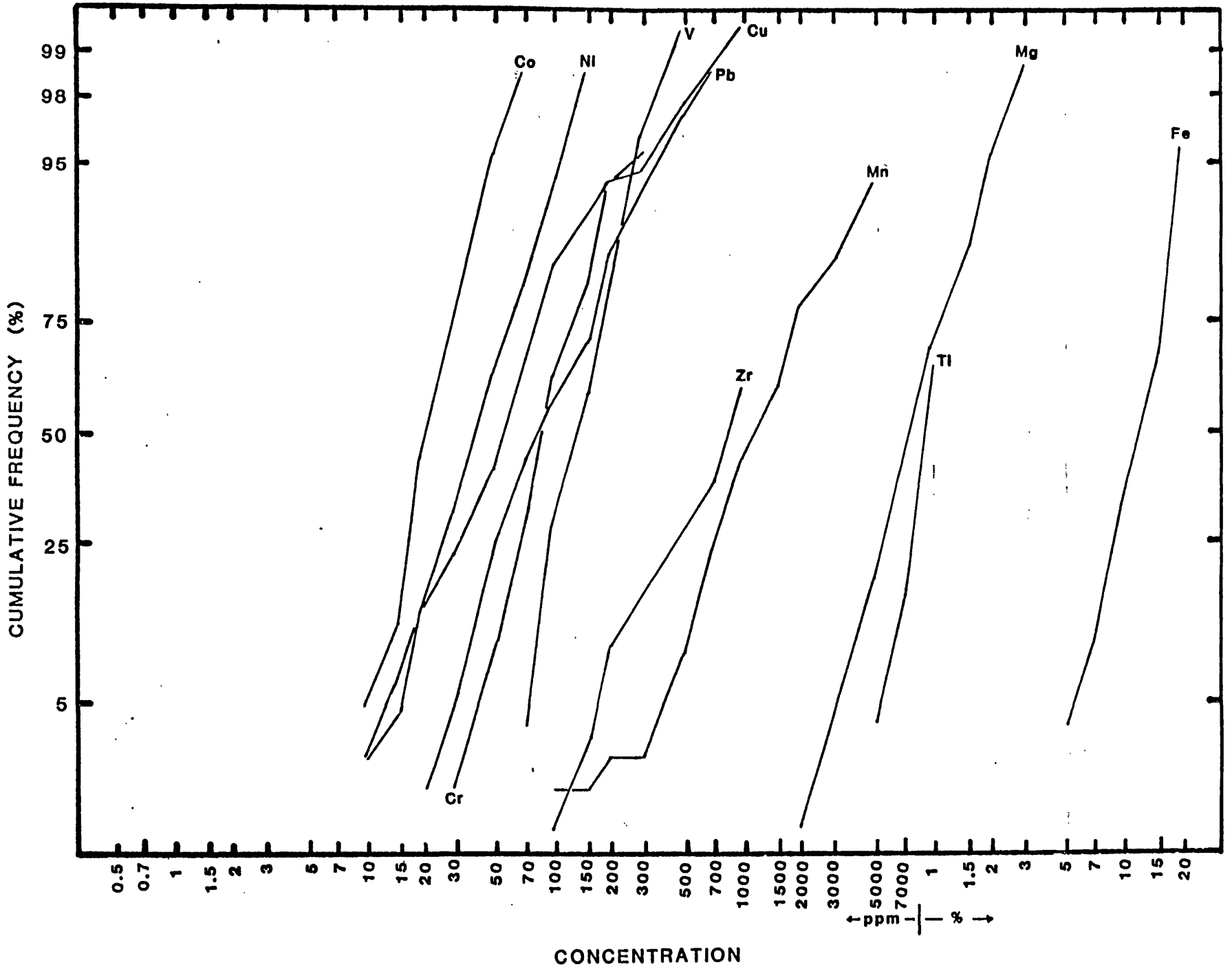
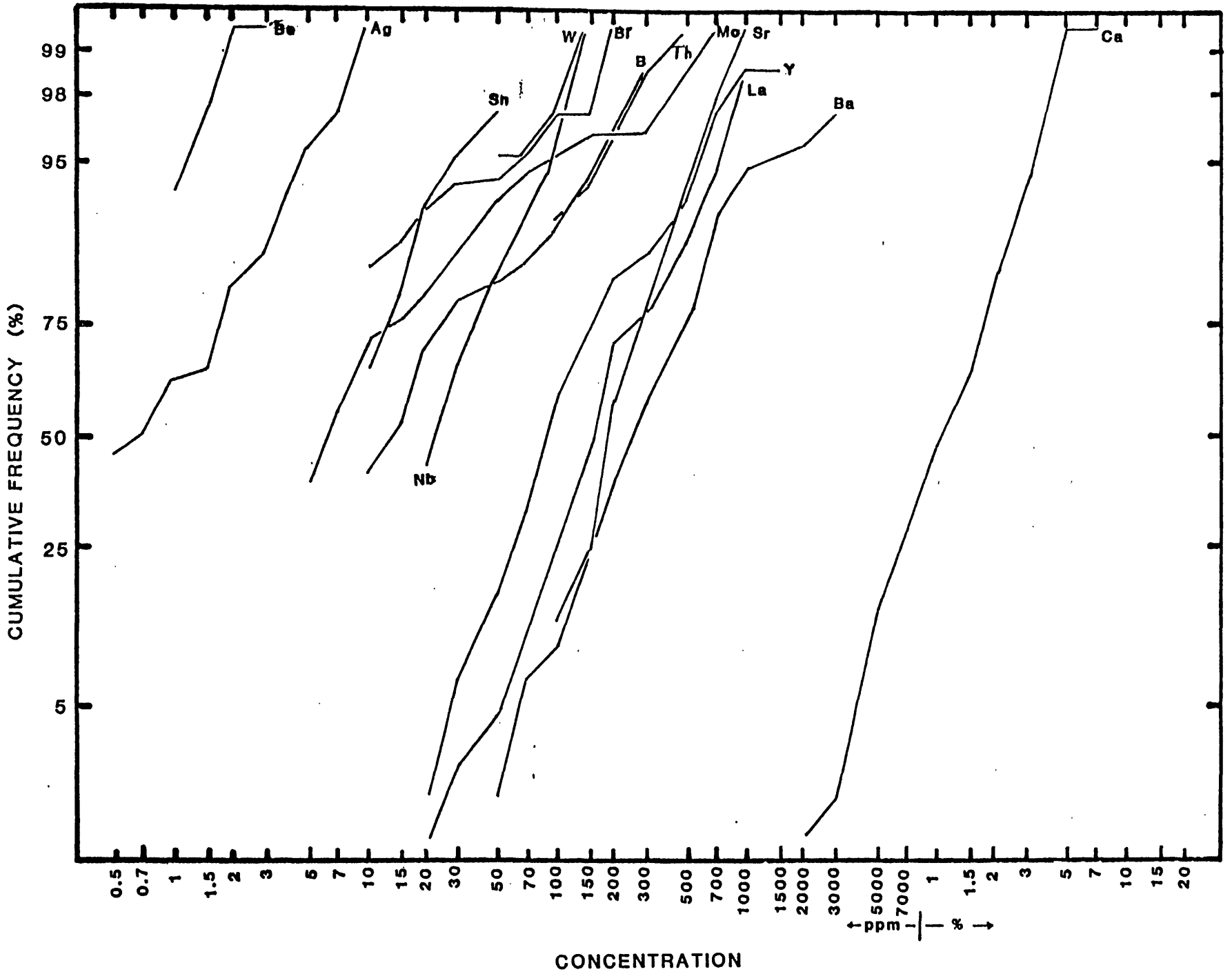


FIGURE 3a CUMULATIVE FREQUENCY DIAGRAMS FOR NON-MAGNETIC FRACTION OF HEAVY-MINERAL CONCENTRATES FROM STREAM SEDIMENTS



CUMULATIVE FREQUENCY DIAGRAMS FOR

FIGURE 3b NON-MAGNETIC FRACTION OF HEAVY-MINERAL CONCENTRATES FROM STREAM SEDIMENTS



## ACKNOWLEDGMENTS

The analytical data were entered into the U.S. Geological Survey's geochemical computer storage system (RASS II) by S. K. McDanal and C. M. McDougal. Samples were collected by field parties of the U.S. Geological Survey in July and August of 1980. Personnel included Steve Ludington, Patty Billings, John Jenkins, and David Sawyer. The samples were analyzed by emission spectroscopy by Stephen Sutley.

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