

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

ANALYSES OF STREAM-SEDIMENT, STREAM-SEDIMENT-CONCENTRATE, AND ROCK SAMPLES,  
VIRGIN MOUNTAINS INSTANT STUDY AREA, CLARK COUNTY, NEVADA

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Open-File Report 81-191

1981

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Analyses of stream-sediment, stream-sediment-concentrate, and rock samples,  
Virgin Mountains Instant Study Area, Clark County, Nevada

By Robert R. Carlson and Elmo F. Cooley

### Introduction

The analytical data in this report are for samples collected in May, 1978, within the proposed boundaries of the study area and in the adjacent Bunkerville Mining District, Clark County, Nevada (see sample location map, figs. 1 & 2). Stream-sediment and stream-sediment-concentrate samples were taken at 42 intermittent and perennial streams. In addition, 42 rock samples were taken, mostly within the Bunkerville Mining District.

### Stream Sample Type

The stream-sediment samples are the minus-80-mesh (0.18 mm screen opening) fraction of stream alluvium. Light-mineral concentrates were produced as the pan waste from the initial panning of washed (de-mudded), minus-8-mesh (2 mm screen opening) stream alluvium. Heavy-mineral concentrates were produced by continued panning to remove the bulk of light minerals and then treatment with bromoform (specific gravity 2.86) to remove the remaining light minerals. Magnetite was removed from the heavy-mineral concentrate with a hand magnet, and then the concentrate was separated using a Frantz Isodynamic Separator<sup>1/</sup> set at 0.6 amp to produce a moderately magnetic and a nonmagnetic fraction.

### Sample Preparation

Rock samples were crushed in a steel-plate jaw crusher and then ground in a ceramic-plate rotary pulveriser to a flour consistency of approximately 125-mesh. Stream-sediment samples and the various fractions of the stream-sediment-concentrate samples were ground in a ceramic-plate rotary pulverisor to a flour consistency of approximately 125-mesh.

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<sup>1/</sup>The use of trade names is for descriptive purposes only, and does not constitute endorsement of this product by the U. S. Geological Survey.

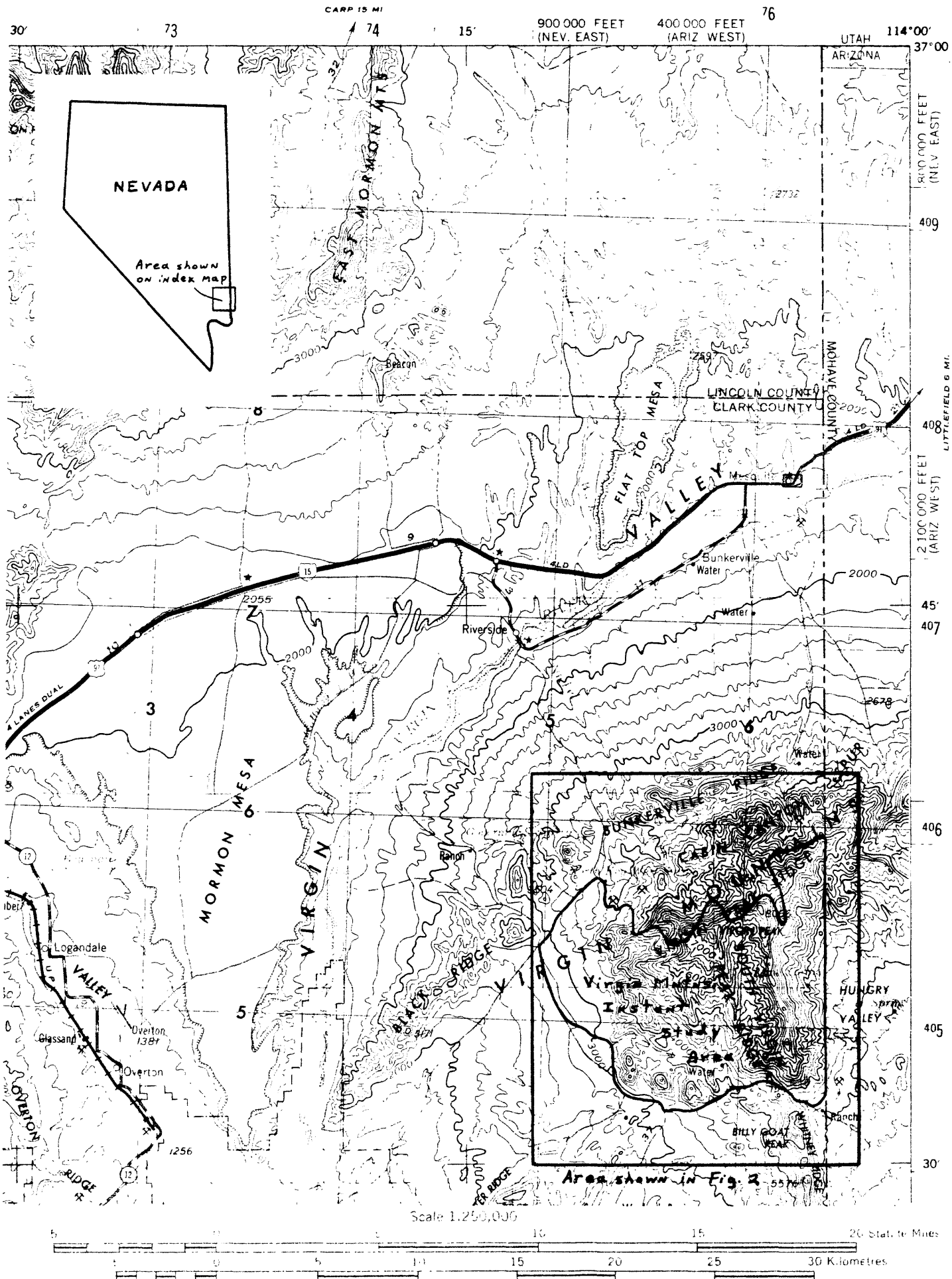


Fig. 1: Location of study area.

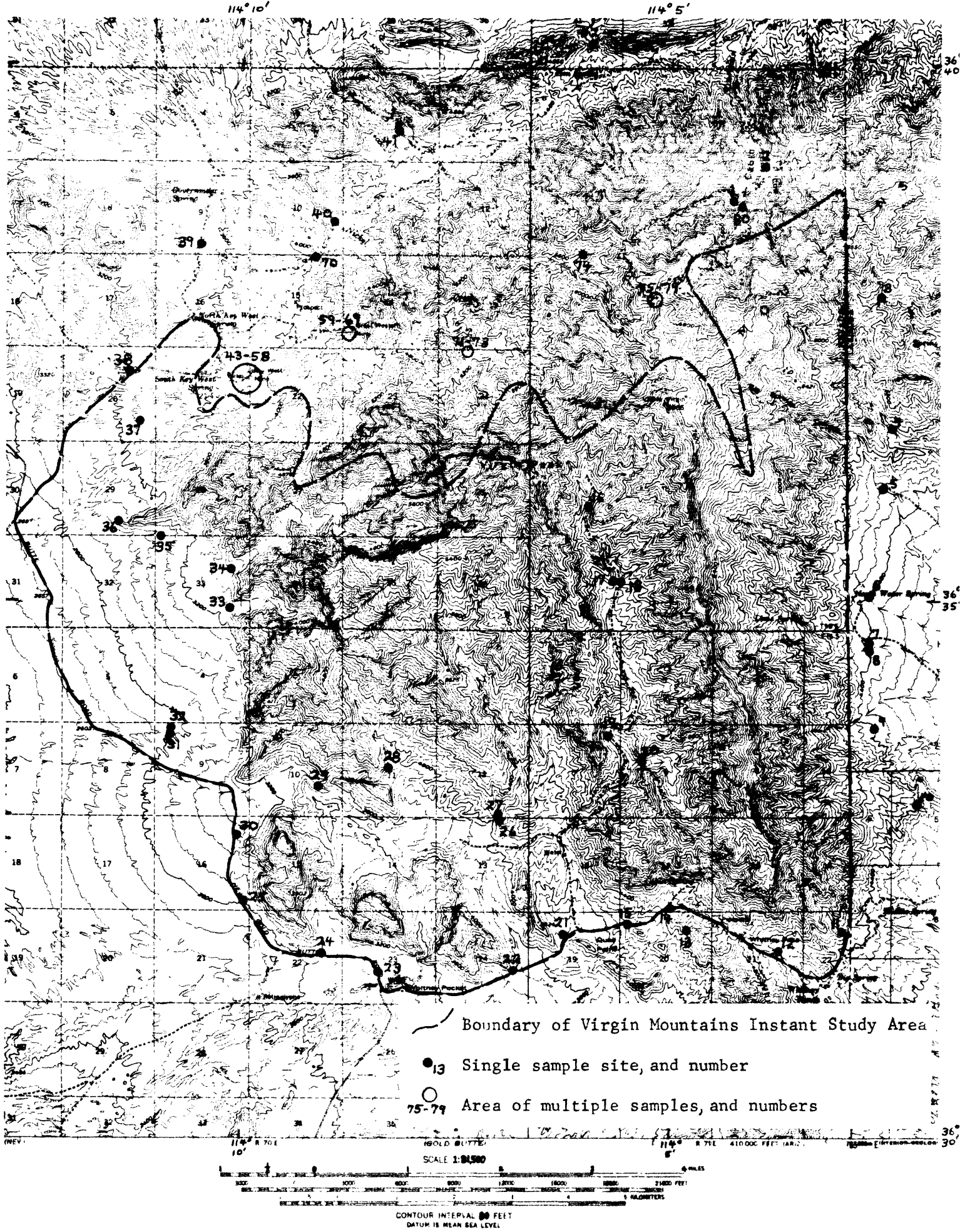


Fig. 2: Sample site locations and study area boundaries.

## Sample Analysis

Thirty-element spectrographic analyses (Grimes and Marranzino, 1968) were performed on the stream-sediment samples, light-mineral-concentrate samples, the magnetic fraction of the heavy-mineral-concentrate samples, the nonmagnetic fraction of the heavy-mineral-concentrate samples, and the rock samples. In addition, fire-assay/emission spectrographic analyses for platinum-group elements and gold (Cooley and others, 1976) were performed on the magnetic fraction of the heavy-mineral-concentrate samples and on the rock samples.

## Analytical Results

The data for the analyzed samples are given in tables 1 through 5. Elements determined by spectrographic analysis are preceded by the letter S; elements determined by fire-assay/spectrographic analysis are preceded by the letter F. Results of the semiquantitative emission spectrographic analyses are reported to the nearest number in the series 0.1, 0.15, 0.2, 0.3, 0.5, 0.7, and 1.0, which represent approximate midpoints of group data on a geometric scale. The assigned groups for the series will include quantitative values about 30 percent of the time. The fire-assay/emission spectrographic analyses are reported in numbers of the same series or in multiples thereof, depending on the sample size. The data should not be quoted without stating these limitations. All data are reported in parts per million (ppm) except where indicated as percent. The letter symbols following analytical values are: N, not detected; L, detected but below limits of determination; G, greater than value shown.

#### References Cited

- Cooley, E. F., Curry, K. J., and Carlson, R. R., 1976, Analysis for the platinum-group metals and gold by fire-assay/emission spectrography: *Applied Spectroscopy*, v. 30, no. 1, p. 52-56.
- Grimes, D. J., and Marranzino, A. P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic materials: U.S. Geological Survey Circular 591, p. 1-6.

TABLE 1. -- DATA FOR STREAM-SEDIMENT SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | Latitude | Longitude | S-Fe% | S-Mg% | S-Ca% | S-Ti% | S-Mn | S-Ag  | S-As  | S-Au | S-B | S-Ba |
|-----------------|----------|-----------|-------|-------|-------|-------|------|-------|-------|------|-----|------|
| 1               | 36:38:42 | 114:04:16 | 5     | 1.5   | 1.0   | 0.5   | 3000 | 0.5 N | 200 N | 10 N | 500 | 500  |
| 2               | 36:39:03 | 114:03:54 | 5     | 1.5   | 1.0   | 0.5   | 2000 | 0.5 N | 200 N | 10 N | 500 | 500  |
| 3               | 36:37:50 | 114:02:33 | 3     | 1.0   | 1.0   | 0.3   | 2000 | 0.5 N | 200 N | 10 N | 100 | 500  |
| 4               | 36:36:37 | 114:02:25 | 5     | 1.0   | 1.0   | 0.5   | 1000 | 0.5 N | 200 N | 10 N | 200 | 500  |
| 5               | 36:36:04 | 114:02:31 | 3     | 1.0   | 5     | 0.3   | 1000 | 0.5 N | 200 N | 10 N | 150 | 500  |
| 6               | 36:35:04 | 114:02:42 | 3     | 1.5   | 3     | 0.3   | 1000 | 0.5 N | 200 N | 10 N | 200 | 500  |
| 7               | 36:34:37 | 114:02:40 | 3     | 1.0   | 2     | 0.2   | 1000 | 0.5 N | 200 N | 10 N | 200 | 500  |
| 8               | 36:34:36 | 114:02:40 | 5     | 2     | 1.5   | 0.5   | 1500 | 0.5 N | 200 N | 10 N | 200 | 500  |
| 9               | 36:33:50 | 114:02:38 | 3     | 2     | 2     | 0.3   | 700  | 0.5 N | 200 N | 10 N | 100 | 500  |
| 10              | 36:33:07 | 114:02:10 | 2     | 2     | 7     | 0.2   | 1000 | 0.5 N | 200 N | 10 N | 150 | 500  |
| 11              | 36:31:57 | 114:03:00 | 1.0   | 5     | 10    | 0.10  | 300  | 0.5 N | 200 N | 10 N | 20  | 150  |
| 12              | 36:31:46 | 114:03:44 | 5     | 3     | 10    | 0.2   | 2000 | 0.5 N | 200 N | 10 N | 50  | 300  |
| 13              | 36:31:58 | 114:04:47 | 7     | 3     | 5     | 0.3   | 3000 | 0.5 N | 200 N | 10 N | 50  | 500  |
| 14              | 36:32:10 | 114:04:58 | 5     | 5     | 7     | 0.2   | 2000 | 0.5 N | 200 N | 10 N | 100 | 300  |
| 15              | 36:31:59 | 114:05:27 | 5     | 3     | 7     | 0.2   | 2000 | 0.5 N | 200 N | 10 N | 50  | 300  |
| 16              | 36:35:54 | 114:05:57 | 2     | 3     | 5     | 0.2   | 500  | 0.5 N | 200 N | 10 N | 50  | 300  |
| 17              | 36:35:10 | 114:05:40 | 2     | 3     | 7     | 0.2   | 700  | 0.5 N | 200 N | 10 N | 50  | 300  |
| 18              | 36:35:10 | 114:05:34 | 2     | 5     | 10    | 0.2   | 500  | 0.5 N | 200 N | 10 N | 50  | 300  |
| 19              | 36:33:46 | 114:05:42 | 1.5   | 5     | 7     | 0.10  | 200  | 0.5 N | 200 N | 10 N | 50  | 150  |
| 20              | 36:33:31 | 114:05:17 | 1.5   | 3     | 7     | 0.2   | 300  | 0.5 N | 200 N | 10 N | 50  | 300  |
| 21              | 36:31:53 | 114:06:13 | 1.5   | 3     | 7     | 0.15  | 300  | 0.5 N | 200 N | 10 N | 50  | 200  |
| 22              | 36:31:34 | 114:06:49 | 1.5   | 2     | 7     | 0.2   | 300  | 0.5 N | 200 N | 10 N | 30  | 500  |
| 23              | 36:31:33 | 114:08:25 | 0.7   | 0.7   | 1.5   | 0.15  | 200  | 0.5 N | 200 N | 10 N | 30  | 500  |
| 24              | 36:31:44 | 114:09:02 | 0.7   | 1.0   | 2     | 0.2   | 200  | 0.5 N | 200 N | 10 N | 30  | 300  |
| 25              | 36:32:14 | 114:09:58 | 1.5   | 2     | 7     | 0.2   | 500  | 0.5 N | 200 N | 10 N | 50  | 500  |
| 26              | 36:32:57 | 114:06:58 | 2     | 3     | 10    | 0.2   | 500  | 0.5 N | 200 N | 10 N | 100 | 300  |
| 27              | 36:33:00 | 114:07:02 | 1.0   | 2     | 15    | 0.2   | 300  | 0.5 N | 200 N | 10 N | 50  | 200  |
| 28              | 36:33:28 | 114:08:19 | 1.5   | 3     | 10    | 0.2   | 300  | 0.5 N | 200 N | 10 N | 30  | 300  |
| 29              | 36:33:15 | 114:09:04 | 1.0   | 2     | 7     | 0.15  | 200  | 0.5 N | 200 N | 10 N | 30  | 200  |
| 30              | 36:32:48 | 114:10:03 | 1.0   | 3     | 10    | 0.2   | 300  | 0.5 N | 200 N | 10 N | 30  | 200  |
| 31              | 36:33:47 | 114:10:47 | 1.0   | 2     | 7     | 0.15  | 200  | 0.5 N | 200 N | 10 N | 30  | 200  |
| 32              | 36:33:50 | 114:10:46 | 1.0   | 2     | 10    | 0.10  | 200  | 0.5 N | 200 N | 10 N | 30  | 200  |
| 33              | 36:34:55 | 114:10:07 | 1.5   | 3     | 7     | 0.15  | 200  | 0.5 N | 200 N | 10 N | 50  | 200  |
| 34              | 36:35:18 | 114:10:05 | 2     | 7     | 15    | 0.2   | 500  | 0.5 N | 200 N | 10 N | 50  | 300  |
| 35              | 36:35:37 | 114:10:54 | 2     | 3     | 7     | 0.2   | 700  | 0.5 N | 200 N | 10 N | 100 | 500  |
| 36              | 36:35:45 | 114:11:26 | 3     | 1.0   | 1.0   | 0.2   | 500  | 0.5 N | 200 N | 10 N | 100 | 500  |
| 37              | 36:36:41 | 114:11:10 | 5     | 2     | 2     | 0.5   | 2000 | 0.5 N | 200 N | 10 N | 100 | 700  |
| 38              | 36:37:08 | 114:11:17 | 5     | 2     | 2     | 0.5   | 2000 | 0.5 N | 200 N | 10 N | 100 | 700  |
| 39              | 36:38:19 | 114:10:29 | 5     | 2     | 2     | 0.3   | 2000 | 0.5 N | 200 N | 10 N | 100 | 700  |
| 40              | 36:38:32 | 114:08:58 | 3     | 1.5   | 7     | 0.2   | 1000 | 0.5 N | 200 N | 10 N | 150 | 500  |
| 41              | 36:39:23 | 114:08:12 | 5     | 2     | 2     | 0.3   | 1500 | 0.5 N | 200 N | 10 N | 100 | 500  |
| 42              | 36:40:09 | 114:05:57 | 3     | 2     | 5     | 0.3   | 1000 | 0.5 N | 200 N | 10 N | 50  | 500  |



TABLE 1 (cont.). -- DATA FOR STREAM-SEDIMENT SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | S-Be  | S-Bi | S-Cd | S-Co | S-Cr | S-Cu | S-La | S-Mo | S-Nb | S-Ni | S-Pb | S-Sb  | S-Sc | S-Sn |
|-----------------|-------|------|------|------|------|------|------|------|------|------|------|-------|------|------|
| 1               | 3     | 10 N | 20 N | 20   | 70   | 50   | 100  | 5 N  | 20 L | 50   | 50   | 100 N | 20   | 10 N |
| 2               | 3     | 10 N | 20 N | 30   | 100  | 50   | 150  | 10   | 20 L | 50   | 50   | 100 N | 20   | 10 N |
| 3               | 2     | 10 N | 20 N | 20   | 70   | 30   | 100  | 5 N  | 20 L | 20   | 50   | 100 N | 20   | 10 N |
| 4               | 3     | 10 N | 20 N | 20   | 70   | 50   | 150  | 5 N  | 20 L | 50   | 50   | 100 N | 20   | 10 N |
| 5               | 2     | 10 N | 20 N | 15   | 70   | 50   | 100  | 5 N  | 20 L | 30   | 50   | 100 N | 15   | 10 N |
| 6               | 3     | 10 N | 20 N | 15   | 70   | 50   | 100  | 5 N  | 20 L | 20   | 70   | 100 N | 15   | 10 N |
| 7               | 3     | 10 N | 20 N | 15   | 70   | 50   | 100  | 5 N  | 20 L | 30   | 50   | 100 N | 15   | 10 N |
| 8               | 2     | 10 N | 20 N | 15   | 70   | 50   | 100  | 5 N  | 20 L | 20   | 70   | 100 N | 20   | 10 N |
| 9               | 3     | 10 N | 20 N | 20   | 100  | 50   | 50   | 5 N  | 20 L | 70   | 50   | 100 N | 20   | 10 N |
| 10              | 2     | 10 N | 20 N | 10   | 70   | 30   | 50   | 5 N  | 20 L | 20   | 70   | 100 N | 10   | 10 N |
| 11              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 10   | 30   | 5 N  | 20 L | 10   | 30   | 100 N | 5    | 10 N |
| 12              | 1.0   | 10 N | 20 N | 15   | 100  | 50   | 100  | 5 N  | 20 L | 70   | 70   | 100 N | 20   | 10 N |
| 13              | 1.0   | 10 N | 20 N | 20   | 150  | 70   | 150  | 5 N  | 20 L | 30   | 70   | 100 N | 20   | 10 N |
| 14              | 1.5   | 10 N | 20 N | 15   | 70   | 50   | 50   | 5 N  | 20 L | 20   | 50   | 100 N | 20   | 10 N |
| 15              | 1.0   | 10 N | 20 N | 10   | 50   | 50   | 50   | 5 N  | 20 L | 10   | 30   | 100 N | 20   | 10 N |
| 16              | 1.0   | 10 N | 20 N | 10   | 50   | 15   | 50   | 5 N  | 20 L | 15   | 50   | 100 N | 10   | 10 N |
| 17              | 1.0   | 10 N | 20 N | 10   | 70   | 20   | 50   | 5 N  | 20 L | 15   | 50   | 100 N | 10   | 10 N |
| 18              | 1.0   | 10 N | 20 N | 10   | 70   | 20   | 50   | 5 N  | 20 L | 15   | 50   | 100 N | 10   | 10 N |
| 19              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 10   | 50   | 5 N  | 20 L | 10   | 30   | 100 N | 5    | 10 N |
| 20              | 1.0   | 10 N | 20 N | 5 L  | 70   | 20   | 50   | 5 N  | 20 L | 20   | 50   | 100 N | 7    | 10 N |
| 21              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 15   | 50   | 5 N  | 20 L | 10   | 30   | 100 N | 5    | 10 N |
| 22              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 10   | 50   | 5 N  | 20 L | 10   | 20   | 100 N | 5    | 10 N |
| 23              | 1.0 L | 10 N | 20 N | 5 L  | 30   | 5    | 50   | 5 N  | 20 L | 10   | 20   | 100 N | 5    | 10 N |
| 24              | 1.0 L | 10 N | 20 N | 5 L  | 30   | 5    | 50   | 5 N  | 20 L | 10   | 20   | 100 N | 5    | 10 N |
| 25              | 1.0   | 10 N | 20 N | 10   | 70   | 15   | 50   | 5 N  | 20 L | 15   | 50   | 100 N | 10   | 10 N |
| 26              | 1.0 L | 10 N | 20 N | 5 L  | 70   | 20   | 50   | 5 N  | 20 L | 15   | 30   | 100 N | 10   | 10 N |
| 27              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 7    | 50   | 5 N  | 20 L | 10   | 20   | 100 N | 5    | 10 N |
| 28              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 10   | 50   | 5 N  | 20 L | 15   | 30   | 100 N | 5    | 10 N |
| 29              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 10   | 50   | 5 N  | 20 L | 15   | 20   | 100 N | 5    | 10 N |
| 30              | 1.0 L | 10 N | 20 N | 5 L  | 70   | 10   | 50   | 5 N  | 20 L | 10   | 20   | 100 N | 5    | 10 N |
| 31              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 10   | 50   | 5 N  | 20 L | 10   | 30   | 100 N | 5    | 10 N |
| 32              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 10   | 50   | 5 N  | 20 L | 10   | 30   | 100 N | 5    | 10 N |
| 33              | 1.0 L | 10 N | 20 N | 5 L  | 50   | 10   | 50   | 5 N  | 20 L | 15   | 50   | 100 N | 5    | 10 N |
| 34              | 1.0   | 10 N | 20 N | 5 L  | 70   | 20   | 50   | 5 N  | 20 L | 20   | 70   | 100 N | 7    | 10 N |
| 35              | 1.5   | 10 N | 20 N | 10   | 70   | 30   | 50   | 5 N  | 20 L | 20   | 50   | 100 N | 10   | 10 N |
| 36              | 2     | 10 N | 20 N | 15   | 70   | 30   | 50   | 5 N  | 20 L | 30   | 20   | 100 N | 15   | 10 N |
| 37              | 2     | 10 N | 20 N | 30   | 150  | 50   | 100  | 5 N  | 20 L | 50   | 50   | 100 N | 20   | 10 N |
| 38              | 2     | 10 N | 20 N | 30   | 200  | 200  | 150  | 5 N  | 20 L | 100  | 50   | 100 N | 30   | 10 N |
| 39              | 2     | 10 N | 20 N | 30   | 200  | 70   | 100  | 5 N  | 20 L | 150  | 50   | 100 N | 20   | 10 N |
| 40              | 1.0   | 10 N | 20 N | 20   | 100  | 50   | 50   | 5 N  | 20 L | 50   | 20   | 100 N | 15   | 10 N |
| 41              | 2     | 10 N | 20 N | 30   | 150  | 70   | 100  | 5 N  | 20 L | 70   | 30   | 100 N | 20   | 10 N |
| 42              | 1.5   | 10 N | 20 N | 20   | 100  | 50   | 100  | 5 N  | 20 L | 50   | 30   | 100 N | 20   | 10 N |

TABLE 1 (cont.). -- DATA FOR STREAM-SEDIMENT SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | S-Sr | S-V | S-W  | S-Y | S-Zn  | S-Zr | S-Th  |
|-----------------|------|-----|------|-----|-------|------|-------|
| 1               | 200  | 200 | 50 N | 50  | 200 N | 200  | 100 N |
| 2               | 200  | 200 | 50 N | 70  | 200 N | 300  | 100 N |
| 3               | 200  | 150 | 50 N | 70  | 200 N | 200  | 100 N |
| 4               | 200  | 100 | 50 N | 70  | 200 N | 500  | 100 N |
| 5               | 200  | 100 | 50 N | 50  | 200 N | 300  | 100 N |
| 6               | 200  | 100 | 50 N | 50  | 200 N | 300  | 100 N |
| 7               | 200  | 100 | 50 N | 50  | 200 N | 200  | 100 N |
| 8               | 150  | 100 | 50 N | 200 | 200 N | 300  | 100 N |
| 9               | 200  | 100 | 50 N | 50  | 200 N | 300  | 100 N |
| 10              | 200  | 100 | 50 N | 50  | 200 N | 200  | 100 N |
| 11              | 150  | 30  | 50 N | 15  | 200 N | 100  | 100 N |
| 12              | 150  | 100 | 50 N | 50  | 200 N | 300  | 100 N |
| 13              | 200  | 200 | 50 N | 50  | 200 N | 500  | 100 N |
| 14              | 200  | 100 | 50 N | 30  | 200 N | 200  | 100 N |
| 15              | 200  | 100 | 50 N | 50  | 200 N | 500  | 100 N |
| 16              | 150  | 50  | 50 N | 20  | 200 N | 200  | 100 N |
| 17              | 150  | 50  | 50 N | 20  | 200 L | 300  | 100 N |
| 18              | 150  | 50  | 50 N | 20  | 200 N | 200  | 100 N |
| 19              | 150  | 30  | 50 N | 10  | 200 N | 150  | 100 N |
| 20              | 150  | 50  | 50 N | 20  | 200 N | 150  | 100 N |
| 21              | 200  | 30  | 50 N | 10  | 200 N | 150  | 100 N |
| 22              | 200  | 50  | 50 N | 20  | 200 L | 500  | 100 N |
| 23              | 200  | 20  | 50 N | 10  | 200 L | 300  | 100 N |
| 24              | 200  | 30  | 50 N | 10  | 200 L | 500  | 100 N |
| 25              | 300  | 70  | 50 N | 30  | 200 L | 300  | 100 N |
| 26              | 200  | 70  | 50 N | 30  | 200 L | 500  | 100 N |
| 27              | 300  | 50  | 50 N | 20  | 200 L | 300  | 100 N |
| 28              | 200  | 50  | 50 N | 20  | 200 L | 200  | 100 N |
| 29              | 200  | 50  | 50 N | 20  | 200 N | 300  | 100 N |
| 30              | 200  | 50  | 50 N | 20  | 200 N | 500  | 100 N |
| 31              | 200  | 50  | 50 N | 15  | 200 N | 300  | 100 N |
| 32              | 150  | 50  | 50 N | 10  | 200 N | 300  | 100 N |
| 33              | 150  | 30  | 50 N | 10  | 200 N | 150  | 100 N |
| 34              | 150  | 50  | 50 N | 20  | 200 N | 200  | 100 N |
| 35              | 200  | 100 | 50 N | 20  | 200 N | 300  | 100 N |
| 36              | 200  | 100 | 50 N | 20  | 200 N | 300  | 100 N |
| 37              | 300  | 200 | 50 N | 50  | 200 N | 300  | 100 N |
| 38              | 500  | 150 | 50 N | 50  | 200 N | 300  | 100 N |
| 39              | 500  | 150 | 50 N | 50  | 200 N | 300  | 100 N |
| 40              | 300  | 150 | 50 N | 50  | 200 N | 100  | 100 N |
| 41              | 300  | 150 | 50 N | 50  | 200 N | 300  | 100 N |
| 42              | 200  | 150 | 50 N | 50  | 200 N | 200  | 100 N |

TABLE 2. -- DATA FOR LIGHT-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | Latitude<br>° ' " | Longitude<br>° ' " | S-Fe% | S-Mg% | S-Ca% | S-Ti% | S-Mn | S-Ag | S-As  | S-Au | S-B | S-Ba |
|-----------------|-------------------|--------------------|-------|-------|-------|-------|------|------|-------|------|-----|------|
| 1               | 36:38:42          | 114:04:16          | 3     | 1.0   | 0.7   | 0.3   | 1000 | 1 N  | 500 N | 20 N | 100 | 500  |
| 2               | 36:39:03          | 114:03:54          | 5     | 1.5   | 1.0   | 0.3   | 1500 | 1 N  | 500 N | 20 N | 200 | 1000 |
| 3               | 36:37:50          | 114:02:33          | 3     | 0.7   | 1.0   | 0.3   | 1500 | 1 N  | 500 N | 20 N | 50  | 1000 |
| 4               | 36:36:37          | 114:02:25          | 3     | 1.0   | 1.0   | 0.3   | 1000 | 1 N  | 500 N | 20 N | 50  | 1000 |
| 5               | 36:36:04          | 114:02:31          | 3     | 1.0   | 10    | 0.3   | 1000 | 1 N  | 500 N | 20 N | 100 | 1000 |
| 6               | 36:35:04          | 114:02:42          | 2     | 0.5   | 1.0   | 0.2   | 300  | 1 N  | 500 N | 20 N | 50  | 1000 |
| 7               | 36:34:37          | 114:02:40          | 3     | 1.0   | 1.0   | 0.3   | 700  | 1 N  | 500 N | 20 N | 150 | 1000 |
| 8               | 36:34:36          | 114:02:40          | 2     | 1.0   | 2     | 0.2   | 500  | 1 N  | 500 N | 20 N | 50  | 200  |
| 9               | 36:33:50          | 114:02:38          | 5     | 1.5   | 2     | 0.3   | 700  | 1 N  | 500 N | 20 N | 100 | 1000 |
| 10              | 36:33:07          | 114:02:10          | 0.5   | 3     | 15    | 0.05  | 200  | 1 N  | 500 N | 20 N | 20  | 200  |
| 11              | 36:31:57          | 114:03:00          | 0.3   | 5     | 20    | 0.1   | 300  | 1 N  | 500 N | 20 N | 20  | 50   |
| 12              | 36:31:46          | 114:03:44          | 2     | 3     | 10    | 0.2   | 300  | 1 N  | 500 N | 20 N | 20  | 300  |
| 13              | 36:31:58          | 114:04:47          | 2     | 1.5   | 2     | 0.2   | 500  | 1 N  | 500 N | 20 N | 20  | 500  |
| 14              | 36:32:10          | 114:04:58          | 1.5   | 5     | 20    | 0.2   | 300  | 1 N  | 500 N | 20 N | 20  | 500  |
| 15              | 36:31:59          | 114:05:27          | 2     | 3     | 7     | 0.2   | 500  | 1 N  | 500 N | 20 N | 20  | 700  |
| 16              | 36:35:54          | 114:05:57          | 0.5   | 3     | 20    | 0.07  | 300  | 1 N  | 500 N | 20 N | 20  | 150  |
| 17              | 36:35:10          | 114:05:40          | 0.5   | 5     | 20    | 0.1   | 300  | 1 N  | 500 N | 20 N | 20  | 150  |
| 18              | 36:35:10          | 114:05:34          | 0.3   | 5     | 20    | 0.07  | 300  | 1 N  | 500 N | 20 N | 20  | 150  |
| 19              | 36:33:46          | 114:05:42          | 0.2   | 5     | 20    | 0.05  | 300  | 1 N  | 500 N | 20 N | 20  | 150  |
| 20              | 36:33:31          | 114:05:17          | 0.3   | 5     | 20    | 0.03  | 300  | 1 N  | 500 N | 20 N | 20  | 150  |
| 21              | 36:31:53          | 114:06:13          | 0.5   | 5     | 20    | 0.07  | 300  | 1 N  | 500 N | 20 N | 20  | 150  |
| 22              | 36:31:34          | 114:06:49          | 0.3   | 3     | 20    | 0.07  | 200  | 1 N  | 500 N | 20 N | 20  | 150  |
| 23              | 36:31:33          | 114:08:25          | 0.3   | 3     | 20    | 0.07  | 300  | 1 N  | 500 N | 20 N | 30  | 200  |
| 24              | 36:31:44          | 114:09:02          | 0.3   | 5     | 15    | 0.07  | 200  | 1 N  | 500 N | 20 N | 20  | 100  |
| 25              | 36:32:14          | 114:09:58          | 0.3   | 3     | 20    | 0.07  | 300  | 1 N  | 500 N | 20 N | 20  | 150  |
| 26              | 36:32:57          | 114:06:58          | 0.3   | 3     | 15    | 0.05  | 200  | 1 N  | 500 N | 20 N | 20  | 150  |
| 27              | 36:33:00          | 114:07:02          | 0.2   | 1.0   | 20    | 0.05  | 200  | 1 N  | 500 N | 20 N | 20  | 50 L |
| 28              | 36:33:28          | 114:08:19          | 0.3   | 2     | 20    | 0.07  | 200  | 1 N  | 500 N | 20 N | 20  | 100  |
| 29              | 36:33:15          | 114:09:04          | 0.3   | 2     | 20    | 0.07  | 200  | 1 N  | 500 N | 20 N | 20  | 100  |
| 30              | 36:32:48          | 114:10:03          | 0.2   | 3     | 20    | 0.05  | 200  | 1 N  | 500 N | 20 N | 15  | 100  |
| 31              | 36:33:47          | 114:10:47          | 0.3   | 5     | 20    | 0.05  | 300  | 1 N  | 500 N | 20 N | 20  | 200  |
| 32              | 36:33:50          | 114:10:46          | 0.3   | 3     | 20    | 0.1   | 200  | 1 N  | 500 N | 20 N | 20  | 150  |
| 33              | 36:34:55          | 114:10:07          | 0.1   | 5     | 20    | 0.05  | 200  | 1 N  | 500 N | 20 N | 20  | 150  |
| 34              | 36:35:18          | 114:10:05          | 0.5   | 7     | 20    | 0.07  | 300  | 1 N  | 500 N | 20 N | 20  | 200  |
| 35              | 36:35:37          | 114:10:54          | 0.5   | 7     | 15    | 0.05  | 200  | 1 N  | 500 N | 20 N | 20  | 50   |
| 36              | 36:35:45          | 114:11:26          | 2     | 1.5   | 2     | 0.1   | 500  | 1 N  | 500 N | 20 N | 30  | 700  |
| 37              | 36:36:41          | 114:11:10          | 5     | 2     | 3     | 0.3   | 1000 | 1 N  | 500 N | 20 N | 50  | 1000 |
| 38              | 36:37:08          | 114:11:17          | 3     | 1.0   | 2     | 0.2   | 700  | 1 N  | 500 N | 20 N | 30  | 1000 |
| 39              | 36:38:19          | 114:10:29          | 3     | 1.5   | 2     | 0.2   | 1000 | 1 N  | 500 N | 20 N | 20  | 1000 |
| 40              | 36:38:32          | 114:08:58          | 2     | 0.7   | 1.0   | 0.15  | 500  | 1 N  | 500 N | 20 N | 20  | 500  |
| 41              | 36:39:23          | 114:08:12          | 3     | 1.5   | 2     | 0.2   | 700  | 1 N  | 500 N | 20 N | 20  | 1000 |
| 42              | 36:40:09          | 114:05:57          | 2     | 1.5   | 2     | 0.2   | 500  | 1 N  | 500 N | 20 N | 20  | 700  |

TABLE 2 (cont.). -- DATA FOR LIGHT-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | S-Be | S-Bi | S-Cd | S-Co | S-Cr | S-Cu | S-La | S-Mo | S-Nb | S-Ni | S-Pb | S-Sb  | S-Sc | S-Sn |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|
| 1               | 5    | 20 N | 50 N | 10   | 30   | 20   | 50   | 10 N | 50 N | 30   | 50   | 200 N | 10   | 20 N |
| 2               | 7    | 20 N | 50 N | 10   | 50   | 30   | 70   | 10 N | 50 N | 30   | 70   | 200 N | 20   | 20 N |
| 3               | 2    | 20 N | 50 N | 10 L | 20   | 20   | 50   | 10 N | 50 N | 20   | 50   | 200 N | 15   | 20 N |
| 4               | 2    | 20 N | 50 N | 10 L | 50   | 15   | 50   | 10 N | 50 N | 10   | 70   | 200 N | 10   | 20 N |
| 5               | 2    | 20 N | 50 N | 10 L | 50   | 15   | 50   | 10 N | 50 N | 10   | 70   | 200 N | 10   | 20 N |
| 6               | 3    | 20 N | 50 N | 10 N | 20   | 10   | 50   | 10 N | 50 N | 10   | 50   | 200 N | 10 L | 20 N |
| 7               | 5    | 20 N | 50 N | 10 L | 50   | 100  | 50   | 10 N | 50 N | 20   | 70   | 200 N | 10   | 20 N |
| 8               | 5    | 20 N | 50 N | 10 L | 20   | 20   | 100  | 10 N | 50 N | 20   | 100  | 200 N | 5    | 20 N |
| 9               | 2    | 20 N | 50 N | 10 L | 70   | 20   | 50   | 10 N | 50 N | 20   | 50   | 200 N | 10   | 20 N |
| 10              | 2 N  | 20 N | 50 N | 10 N | 20 N | 10 L | 50 L | 10 N | 50 N | 10 L | 20 L | 200 N | 10 N | 20 N |
| 11              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 L | 50   | 10 N | 50 N | 10 L | 20   | 200 N | 10 N | 20 N |
| 12              | 2 L  | 20 N | 50 N | 10 L | 100  | 15   | 50   | 10 N | 50 N | 50   | 50   | 200 N | 10 N | 20 N |
| 13              | 2 L  | 20 N | 50 N | 10 L | 50   | 20   | 50   | 10 N | 50 N | 20   | 100  | 200 N | 5    | 20 N |
| 14              | 2 L  | 20 N | 50 N | 10 N | 20 L | 15   | 50 L | 10 N | 50 N | 10   | 30   | 200 N | 7    | 20 N |
| 15              | 2 L  | 20 N | 50 N | 10   | 20 L | 20   | 50 L | 10 N | 50 N | 10   | 50   | 200 N | 5    | 20 N |
| 16              | 2 L  | 20 N | 50 N | 10 N | 20 L | 10   | 50   | 10 N | 50 N | 10 L | 20   | 200 N | 10 N | 20 N |
| 17              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10   | 50   | 10 N | 50 N | 10 L | 20   | 200 N | 10 N | 20 N |
| 18              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10   | 50   | 10 N | 50 N | 10 L | 20   | 200 N | 10 N | 20 N |
| 19              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 L | 50   | 10 N | 50 N | 10 L | 20 L | 200 N | 10 N | 20 N |
| 20              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 L | 50   | 10 N | 50 N | 10 L | 20   | 200 N | 10 N | 20 N |
| 21              | 2 L  | 20 N | 50 N | 10 N | 20 L | 10 L | 50 L | 10 N | 50 N | 10 L | 20 L | 200 N | 5    | 20 N |
| 22              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10   | 50 L | 10 N | 50 N | 10 L | 20 N | 200 N | 10 N | 20 N |
| 23              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 L | 50 L | 10 N | 50 N | 10 L | 20 N | 200 N | 10 N | 20 N |
| 24              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10   | 50 L | 10 N | 50 N | 10 L | 20 N | 200 N | 10 N | 20 N |
| 25              | 2 L  | 20 N | 50 N | 10 N | 20 L | 10 N | 50 L | 10 N | 50 N | 10 L | 20 N | 200 N | 10 N | 20 N |
| 26              | 2 L  | 20 N | 50 N | 10 N | 20 L | 10 L | 50 L | 10 N | 50 N | 10 L | 20 L | 200 N | 10 N | 20 N |
| 27              | 2 L  | 20 N | 50 N | 10 N | 20 L | 10 L | 50 L | 10 N | 50 N | 10 L | 20 L | 200 N | 10 N | 20 N |
| 28              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 N | 50 L | 10 N | 50 N | 10 L | 20 N | 200 N | 10 N | 20 N |
| 29              | 2 L  | 20 N | 50 N | 10 N | 20 L | 10 N | 50 L | 10 N | 50 N | 10 L | 20 N | 200 N | 10 N | 20 N |
| 30              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 N | 50 L | 10 N | 50 N | 10 L | 20 N | 200 N | 10 N | 20 N |
| 31              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 L | 50   | 10 N | 50 N | 10 L | 20 L | 200 N | 10 N | 20 N |
| 32              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 L | 50   | 10 N | 50 N | 10 L | 20 L | 200 N | 10 N | 20 N |
| 33              | 2 N  | 20 N | 50 N | 10 N | 20 L | 10 L | 50 L | 10 N | 50 N | 10 L | 20 L | 200 N | 10 N | 20 N |
| 34              | 2 L  | 20 N | 50 N | 10 N | 20 L | 10   | 50   | 10 N | 50 N | 10 L | 20   | 200 N | 10 N | 20 N |
| 35              | 2 L  | 20 N | 50 N | 10 N | 20 N | 10   | 50 L | 10 N | 50 N | 10 L | 20 L | 200 N | 10 N | 20 N |
| 36              | 2 L  | 20 N | 50 N | 10 L | 20   | 10   | 50 L | 10 N | 50 N | 15   | 20 L | 200 N | 10 L | 20 N |
| 37              | 2    | 20 N | 50 N | 10   | 100  | 50   | 50   | 10 N | 50 N | 30   | 50   | 200 N | 15   | 20 N |
| 38              | 2    | 20 N | 50 N | 10 L | 50   | 30   | 50   | 10 N | 50 N | 30   | 20   | 200 N | 10   | 20 N |
| 39              | 2    | 20 N | 50 N | 10 L | 100  | 15   | 50   | 10 N | 50 N | 50   | 20   | 200 N | 15   | 20 N |
| 40              | 2 L  | 20 N | 50 N | 10 L | 20   | 10   | 50   | 10 N | 50 N | 20   | 20 L | 200 N | 10 L | 20 N |
| 41              | 2 L  | 20 N | 50 N | 10 L | 50   | 15   | 50   | 10 N | 50 N | 30   | 50   | 200 N | 10   | 20 N |
| 42              | 2 L  | 20 N | 50 N | 10 L | 20   | 15   | 50   | 10 N | 50 N | 20   | 20   | 200 N | 10 L | 20 N |

TABLE 2 (cont.). -- DATA FOR LIGHT-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | S-Sr  | S-V  | S-W   | S-Y  | S-Zn  | S-Zr | S-Th  |
|-----------------|-------|------|-------|------|-------|------|-------|
| 1               | 200 L | 100  | 100 N | 20 L | 500 N | 200  | 200 N |
| 2               | 200   | 150  | 100 N | 50   | 500 N | 200  | 200 N |
| 3               | 200   | 100  | 100 N | 70   | 500 N | 200  | 200 N |
| 4               | 200   | 70   | 100 N | 20 L | 500 N | 300  | 200 N |
| 5               | 300   | 70   | 100 N | 50   | 500 N | 100  | 200 N |
| 6               | 200   | 20   | 100 N | 20   | 500 N | 200  | 200 N |
| 7               | 200   | 70   | 100 N | 20 N | 500 N | 200  | 200 N |
| 8               | 200   | 30   | 100 N | 20   | 500 N | 100  | 200 N |
| 9               | 200   | 70   | 100 N | 50   | 500 N | 100  | 200 N |
| 10              | 200   | 20 L | 100 N | 20 N | 500 N | 50   | 200 N |
| 11              | 500   | 20   | 100 N | 20 N | 500 N | 20 L | 200 N |
| 12              | 200   | 50   | 100 N | 20 N | 500 N | 70   | 200 N |
| 13              | 200   | 70   | 100 N | 20 N | 500 N | 100  | 200 N |
| 14              | 200   | 50   | 100 N | 20 N | 500 N | 50   | 200 N |
| 15              | 200   | 50   | 100 N | 20 N | 500 N | 100  | 200 N |
| 16              | 200   | 20   | 100 N | 20 N | 500 N | 50   | 200 N |
| 17              | 200   | 20   | 100 N | 20 N | 500 N | 50   | 200 N |
| 18              | 200   | 20   | 100 N | 20 N | 500 N | 70   | 200 N |
| 19              | 200   | 20   | 100 N | 20 N | 500 N | 20   | 200 N |
| 20              | 200   | 20   | 100 N | 20 N | 500 N | 20 L | 200 N |
| 21              | 200   | 20   | 100 N | 20 N | 500 N | 30   | 200 N |
| 22              | 200   | 20   | 100 N | 20 N | 500 N | 70   | 200 N |
| 23              | 200   | 20   | 100 N | 20 N | 500 N | 50   | 200 N |
| 24              | 200   | 20   | 100 N | 20 N | 500 N | 50   | 200 N |
| 25              | 200   | 20   | 100 N | 20 N | 500 N | 70   | 200 N |
| 26              | 200   | 20 L | 100 N | 20 L | 500 N | 20 L | 200 N |
| 27              | 300   | 20 L | 100 N | 20 N | 500 N | 20 L | 200 N |
| 28              | 300   | 20   | 100 N | 20 N | 500 N | 100  | 200 N |
| 29              | 300   | 20   | 100 N | 20 N | 500 N | 20   | 200 N |
| 30              | 500   | 20   | 100 N | 20 N | 500 N | 20 L | 200 N |
| 31              | 300   | 20   | 100 N | 20 N | 500 N | 70   | 200 N |
| 32              | 200   | 20   | 100 N | 20 N | 500 N | 50   | 200 N |
| 33              | 200   | 20   | 100 N | 20 N | 500 N | 20 L | 200 N |
| 34              | 200   | 20   | 100 N | 20 N | 500 N | 20   | 200 N |
| 35              | 200   | 20 L | 100 N | 20 N | 500 N | 20 L | 200 N |
| 36              | 300   | 50   | 100 N | 20 N | 500 N | 70   | 200 N |
| 37              | 500   | 100  | 100 N | 20   | 500 N | 200  | 200 N |
| 38              | 500   | 70   | 100 N | 20 L | 500 N | 100  | 200 N |
| 39              | 500   | 70   | 100 N | 50   | 500 N | 100  | 200 N |
| 40              | 200   | 50   | 100 N | 20 N | 500 N | 70   | 200 N |
| 41              | 500   | 70   | 100 N | 20 L | 500 N | 70   | 200 N |
| 42              | 300   | 70   | 100 N | 20 N | 500 N | 70   | 200 N |

TABLE 3. -- DATA FOR MAGNETIC HEAVY-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | Latitude<br>° ' " | Longitude<br>° ' " | S-Fe% | S-Mg% | S-Ca% | S-Ti% | S-Mn   | S-Ag | A-As  | A-Au | S-B  | S-Ba |
|-----------------|-------------------|--------------------|-------|-------|-------|-------|--------|------|-------|------|------|------|
| 1               | 36:38:42          | 114:04:16          | 20 G  | 0.5   | 0.5   | 1.0   | 5000 G | 1 N  | 500 N | 20 N | 20   | 50 N |
| 2               | 36:39:03          | 114:03:54          | 20 G  | 0.3   | 0.2   | 1.0   | 5000   | 1 N  | 500 N | 20 N | 50   | 50 N |
| 3               | 36:37:50          | 114:02:33          | 20 G  | 0.7   | 0.5   | 1.0 G | 5000 G | 1 N  | 500 N | 20 N | 20   | 50 N |
| 4               | 36:36:37          | 114:02:25          | 20 G  | 0.2   | 0.1   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 5               | 36:36:04          | 114:02:31          | 20 G  | 0.5   | 0.5   | 1.0 G | 5000 G | 1 N  | 500 N | 20 N | 150  | 50 N |
| 6               | 36:35:04          | 114:02:42          | 20 G  | 0.2   | 0.07  | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 100  | 50 N |
| 7               | 36:34:37          | 114:02:40          | 20 G  | 0.2   | 0.07  | 1.0   | 5000   | 1 N  | 500 N | 20 N | 50   | 50 N |
| 8               | 36:34:36          | 114:02:40          | 20 G  | 0.3   | 0.15  | 1.0 G | 5000 G | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 9               | 36:33:50          | 114:02:38          | 20 G  | 0.2   | 0.15  | 1.0 G | 1000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 10              | 36:33:07          | 114:02:10          | 20 G  | 0.3   | 0.1   | 1.0 G | 3000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 11              | 36:31:57          | 114:03:00          | 20 G  | 0.3   | 0.2   | 1.0 G | 3000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 12              | 36:31:46          | 114:03:44          | 20 G  | 0.5   | 0.3   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 13              | 36:31:58          | 114:04:47          | 20 G  | 0.5   | 0.5   | 1.0 G | 5000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 14              | 36:32:10          | 114:04:58          | 20 G  | 0.3   | 0.15  | 1.0 G | 1000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 15              | 36:31:59          | 114:05:27          | 20 G  | 0.3   | 0.1   | 1.0 G | 1500   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 16              | 36:35:54          | 114:05:57          | 20 G  | 0.3   | 0.2   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 L |
| 17              | 36:35:10          | 114:05:40          | 20 G  | 0.3   | 0.2   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 L |
| 18              | 36:35:10          | 114:05:34          | 20 G  | 0.5   | 0.2   | 1.0 G | 3000   | 1 N  | 500 N | 20 N | 20 L | 50 L |
| 19              | 36:33:46          | 114:05:42          | 20 G  | 0.5   | 0.2   | 1.0 G | 3000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 20              | 36:33:31          | 114:05:17          | 20 G  | 0.5   | 0.2   | 1.0 G | 3000   | 1 N  | 500 N | 20 N | 20 L | 50   |
| 21              | 36:31:53          | 114:06:13          | 20 G  | 0.3   | 0.1   | 1.0 G | 1500   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 22              | 36:31:34          | 114:06:49          | 20 G  | 0.5   | 0.2   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 23              | 36:31:33          | 114:08:25          | 20 G  | 0.3   | 0.05  | 1.0 G | 1500   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 24              | 36:31:44          | 114:09:02          | 20 G  | 0.5   | 0.1   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 25              | 36:32:14          | 114:09:58          | 20 G  | 0.5   | 0.2   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 26              | 36:32:57          | 114:06:58          | 20 G  | 0.3   | 0.15  | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 27              | 36:33:00          | 114:07:02          | 20 G  | 0.3   | 0.15  | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 28              | 36:33:28          | 114:08:19          | 20 G  | 1.0   | 0.3   | 1.0 G | 3000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 29              | 36:33:15          | 114:09:04          | 20 G  | 0.5   | 0.2   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 30              | 36:32:48          | 114:10:03          | 20 G  | 0.5   | 0.2   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 31              | 36:33:47          | 114:10:47          | 20 G  | 0.5   | 0.3   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 32              | 36:33:50          | 114:10:46          | 20 G  | 0.3   | 0.2   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 33              | 36:34:55          | 114:10:07          | 20 G  | 0.5   | 0.2   | 1.0 G | 3000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 34              | 36:35:18          | 114:10:05          | 20 G  | 0.5   | 0.2   | 1.0 G | 3000   | 1 N  | 500 N | 20 N | 20 L | 50 N |
| 35              | 36:35:37          | 114:10:54          | 20 G  | 0.5   | 0.2   | 1.0 G | 5000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 36              | 36:35:45          | 114:11:26          | 20 G  | 0.5   | 0.2   | 1.0 G | 2000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 37              | 36:36:41          | 114:11:10          | 20 G  | 1.0   | 0.7   | 1.0   | 5000 G | 1 N  | 500 N | 20 N | 20   | 50 N |
| 38              | 36:37:08          | 114:11:17          | 20 G  | 1.0   | 0.7   | 1.0   | 2000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 39              | 36:38:19          | 114:10:29          | 20 G  | 1.5   | 1.0   | 1.0   | 1500   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 40              | 36:38:32          | 114:08:58          | 20 G  | 0.5   | 0.7   | 1.0   | 2000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 41              | 36:39:23          | 114:08:12          | 20 G  | 1.5   | 1.0   | 1.0   | 2000   | 1 N  | 500 N | 20 N | 20   | 50 N |
| 42              | 36:40:09          | 114:05:57          | 20 G  | 1.0   | 1.0   | 1.0 G | 5000   | 1 N  | 500 N | 20 N | 20   | 50 N |

TABLE 3 (cont.). -- DATA FOR MAGNETIC HEAVY-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | S-Be | S-Bi | S-Cd | S-Co | S-Cr | S-Cu | S-La | S-Mo | S-Nb | S-Ni | S-Pb | S-Sb  | S-Sc | S-Sn |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|
| 1               | 2 N  | 20 N | 50 N | 50   | 300  | 100  | 50   | 10 N | 50 L | 50   | 20 L | 200 N | 50   | 20 N |
| 2               | 2 N  | 20 N | 50 N | 50   | 300  | 100  | 50   | 10 N | 50 L | 50   | 20 L | 200 N | 30   | 20 N |
| 3               | 2 N  | 20 N | 50 N | 50   | 500  | 200  | 50   | 10 N | 50 L | 50   | 20 L | 200 N | 100  | 20 N |
| 4               | 2 N  | 20 N | 50 N | 30   | 700  | 100  | 50   | 10 N | 50 L | 70   | 20 L | 200 N | 30   | 20 N |
| 5               | 2 N  | 20 N | 50 N | 20   | 200  | 100  | 50   | 10 N | 50 L | 70   | 20 L | 200 N | 50   | 20 N |
| 6               | 2 N  | 20 N | 50 N | 20   | 500  | 100  | 70   | 10 N | 50 L | 70   | 20 L | 200 N | 20   | 20 N |
| 7               | 2 N  | 20 N | 50 N | 20   | 300  | 100  | 100  | 10 N | 50 L | 30   | 20 L | 200 N | 30   | 20 N |
| 8               | 2 N  | 20 N | 50 N | 50   | 300  | 200  | 50   | 10 N | 50 L | 50   | 20   | 200 N | 100  | 20 N |
| 9               | 2 N  | 20 N | 50 N | 30   | 700  | 200  | 50   | 10 N | 50 L | 70   | 20 L | 200 N | 20   | 20 N |
| 10              | 2 N  | 20 N | 50 N | 100  | 1000 | 200  | 50   | 10 N | 50 L | 150  | 50   | 200 N | 20   | 20 N |
| 11              | 2 N  | 20 N | 50 N | 100  | 1500 | 200  | 50   | 10 N | 50 L | 200  | 30   | 200 N | 30   | 20 N |
| 12              | 2 N  | 20 N | 50 N | 100  | 200  | 300  | 50   | 10 N | 50 L | 200  | 50   | 200 N | 30   | 20 N |
| 13              | 2 N  | 20 N | 50 N | 50   | 500  | 300  | 50   | 10 N | 50 L | 100  | 20 L | 200 N | 70   | 20 N |
| 14              | 2 N  | 20 N | 50 N | 100  | 500  | 200  | 50   | 10 N | 50 L | 100  | 20 L | 200 N | 20   | 20 N |
| 15              | 2 N  | 20 N | 50 N | 50   | 300  | 200  | 50   | 10 N | 50 L | 50   | 30   | 200 N | 20   | 20 N |
| 16              | 2 N  | 20 N | 50 N | 70   | 700  | 300  | 50   | 70   | 50 L | 200  | 100  | 200 N | 30   | 20 N |
| 17              | 2 N  | 20 N | 50 N | 70   | 700  | 200  | 50   | 50   | 50 L | 200  | 50   | 200 N | 30   | 20 N |
| 18              | 2 N  | 20 N | 50 N | 70   | 700  | 300  | 50   | 50   | 50 L | 200  | 100  | 200 N | 30   | 20 N |
| 19              | 2 N  | 20 N | 50 N | 70   | 700  | 300  | 50   | 20   | 50 L | 200  | 100  | 200 N | 30   | 20 N |
| 20              | 2 N  | 20 N | 50 N | 70   | 700  | 200  | 50   | 30   | 50 L | 200  | 100  | 200 N | 30   | 20 N |
| 21              | 2 N  | 20 N | 50 N | 100  | 1000 | 200  | 50   | 10 N | 50 L | 150  | 20 L | 200 N | 20   | 20 N |
| 22              | 2 N  | 20 N | 50 N | 70   | 700  | 200  | 50   | 10 N | 50 L | 150  | 50   | 200 N | 20   | 20 N |
| 23              | 2 N  | 20 N | 50 N | 70   | 1000 | 100  | 50   | 10 N | 50 L | 150  | 20   | 200 N | 20   | 20 N |
| 24              | 2 N  | 20 N | 50 N | 70   | 700  | 100  | 50   | 10 N | 50 L | 150  | 20 L | 200 N | 20   | 20 N |
| 25              | 2 N  | 20 N | 50 N | 70   | 700  | 100  | 50   | 10 N | 50 L | 150  | 20 L | 200 N | 20   | 20 N |
| 26              | 2 N  | 20 N | 50 N | 70   | 700  | 200  | 50   | 10 N | 50 L | 150  | 30   | 200 N | 20   | 20 N |
| 27              | 2 N  | 20 N | 50 N | 70   | 700  | 200  | 50   | 10 N | 50 L | 150  | 30   | 200 N | 20   | 20 N |
| 28              | 2 N  | 20 N | 50 N | 150  | 2000 | 150  | 50   | 10 N | 50 L | 200  | 20 L | 200 N | 50   | 20 N |
| 29              | 2 N  | 20 N | 50 N | 70   | 700  | 100  | 50   | 10 N | 50 L | 150  | 20 L | 200 N | 20   | 20 N |
| 30              | 2 N  | 20 N | 50 N | 70   | 700  | 100  | 50   | 10 N | 50 L | 150  | 20 L | 200 N | 20   | 20 N |
| 31              | 2 N  | 20 N | 50 N | 70   | 1000 | 200  | 50   | 10 N | 50 L | 200  | 30   | 200 N | 30   | 20 N |
| 32              | 2 N  | 20 N | 50 N | 70   | 700  | 150  | 50   | 10 N | 50 L | 150  | 20 L | 200 N | 30   | 20 N |
| 33              | 2 N  | 20 N | 50 N | 100  | 700  | 200  | 50   | 10 N | 50 L | 200  | 20   | 200 N | 30   | 20 N |
| 34              | 2 N  | 20 N | 50 N | 100  | 700  | 200  | 50   | 10 N | 50 L | 200  | 20   | 200 N | 30   | 20 N |
| 35              | 2 N  | 20 N | 50 N | 100  | 1000 | 200  | 50   | 10 N | 50 L | 150  | 30   | 200 N | 30   | 20 N |
| 36              | 2 N  | 20 N | 50 N | 70   | 700  | 300  | 50   | 10 N | 50 L | 100  | 20 L | 200 N | 30   | 20 N |
| 37              | 2 N  | 20 N | 50 N | 50   | 1000 | 150  | 50   | 10 N | 50 L | 100  | 20 L | 200 N | 50   | 20 N |
| 38              | 2 N  | 20 N | 50 N | 70   | 1000 | 200  | 50   | 10 N | 50 L | 200  | 20 L | 200 N | 50   | 20 N |
| 39              | 2 N  | 20 N | 50 N | 70   | 3000 | 200  | 100  | 10 N | 50 L | 200  | 20 L | 200 N | 30   | 20 N |
| 40              | 2 N  | 20 N | 50 N | 70   | 700  | 150  | 70   | 10 N | 50 L | 100  | 20 L | 200 N | 30   | 20 N |
| 41              | 2 N  | 20 N | 50 N | 50   | 1000 | 200  | 150  | 10 N | 50 L | 150  | 20 L | 200 N | 30   | 20 N |
| 42              | 2 N  | 20 N | 50 N | 70   | 700  | 200  | 200  | 10 N | 50 L | 150  | 20 L | 200 N | 30   | 20 N |

TABLE 3 (cont.). -- DATA FOR MAGNETIC HEAVY-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| SAMPLE Site No. | S-Sr  | S-V  | S-W   | S-Y  | S-Zn  | S-Zr | S-Th  | F-Au    | F-Pt    | F-Pd    | F-Rh    | F-Ir  |
|-----------------|-------|------|-------|------|-------|------|-------|---------|---------|---------|---------|-------|
| 1               | 200 N | 300  | 100 N | 300  | 500 L | 500  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.006 N | 0.3 N |
| 2               | 200 N | 500  | 100 N | 200  | 500 L | 300  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.006 N | 0.3 N |
| 3               | 200 N | 500  | 100 N | 200  | 500 L | 300  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.006 N | 0.3 N |
| 4               | 200 N | 500  | 100 N | 150  | 500 L | 200  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.006 N | 0.3 N |
| 5               | 200 N | 300  | 100 N | 150  | 500 L | 200  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.006 N | 0.3 N |
| 6               | 200 N | 500  | 100 N | 50   | 500 L | 500  | 200 N | 0.003 N | 0.02 N  | 0.003 N | 0.006 N | 0.3 N |
| 7               | 200 N | 500  | 100 N | 300  | 500 L | 300  | 200 N | 0.002 N | 0.010 N | 0.002 N | 0.005 N | 0.2 N |
| 8               | 200 N | 700  | 100 N | 200  | 500 L | 300  | 200 N | 0.007 N | 0.03 N  | 0.007 N | 0.015 N | 0.7 N |
| 9               | 200 N | 500  | 100 N | 50   | 500 L | 200  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.006 N | 0.3 N |
| 10              | 200 N | 1000 | 100 N | 30   | 500 L | 300  | 200 N | 0.03 N  | 0.15 N  | 0.03 N  | 0.05 N  | 3 N   |
| 11              | 200 N | 1000 | 100 N | 50   | 500 L | 300  | 200 N | 0.02 N  | 0.10 N  | 0.02 N  | 0.05 N  | 2 N   |
| 12              | 200 N | 1000 | 100 N | 50   | 500 L | 500  | 200 N | 0.006 N | 0.03 N  | 0.006 N | 0.010 N | 0.6 N |
| 13              | 200 N | 500  | 100 N | 150  | 500 L | 100  | 200 N | 0.007 N | 0.04 N  | 0.007 N | 0.015 N | 0.7 N |
| 14              | 200 N | 2000 | 100 N | 20 L | 500 L | 100  | 200 N | 0.03 N  | 0.15 N  | 0.03 N  | 0.06 N  | 3 N   |
| 15              | 200 N | 1000 | 100 N | 20   | 500 L | 100  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.005 N | 0.3 N |
| 16              | 200 N | 1000 | 100 N | 50   | 500 L | 500  | 200 N | 0.03 N  | 0.15 N  | 0.03 N  | 0.07 N  | 3 N   |
| 17              | 200 N | 1000 | 100 N | 50   | 500 L | 500  | 200 N | 0.03 N  | 0.15 N  | 0.03 N  | 0.05 N  | 3 N   |
| 18              | 200 N | 1000 | 100 N | 70   | 500 L | 500  | 200 N | 0.02 N  | 0.10 N  | 0.02 N  | 0.05 N  | 2 N   |
| 19              | 200 N | 1000 | 100 N | 20   | 500 L | 300  | 200 N | 0.03 N  | 0.15 N  | 0.03 N  | 0.07 N  | 3 N   |
| 20              | 200 N | 1000 | 100 N | 50   | 500 L | 300  | 200 N | 0.05 N  | 0.2 N   | 0.05 N  | 0.10 N  | 5 N   |
| 21              | 200 N | 1500 | 100 N | 20 N | 500 L | 300  | 200 N | 0.07 N  | 0.4 N   | 0.07 N  | 0.15 N  | 7 N   |
| 22              | 200 N | 1500 | 100 N | 20   | 500 L | 300  | 200 N | 0.03 N  | 0.15 N  | 0.03 N  | 0.07 N  | 3 N   |
| 23              | 200 N | 1000 | 100 N | 20 L | 500 L | 700  | 200 N | 0.3 N   | 1.5 N   | 0.3 N   | 0.6 N   | 30 N  |
| 24              | 200 N | 1000 | 100 N | 20 L | 500 L | 300  | 200 N | 0.07 N  | 0.4 N   | 0.07 N  | 0.15 N  | 7 N   |
| 25              | 200 N | 1000 | 100 N | 20   | 500 L | 500  | 200 N | 0.03 N  | 0.15 N  | 0.03 N  | 0.05 N  | 3 N   |
| 26              | 200 N | 1000 | 100 N | 20 L | 500 L | 300  | 200 N | 0.07 N  | 0.4 N   | 0.07 N  | 0.15 N  | 7 N   |
| 27              | 200 N | 1000 | 100 N | 20 L | 500 L | 500  | 200 N | 0.07 N  | 0.4 N   | 0.07 N  | 0.15 N  | 7 N   |
| 28              | 200 N | 1000 | 100 N | 50   | 500 L | 500  | 200 N | 0.15 N  | 0.8 N   | 0.15 N  | 0.3 N   | 15 N  |
| 29              | 200 N | 1000 | 100 N | 20 L | 500 L | 500  | 200 N | 0.06 N  | 0.3 N   | 0.06 N  | 0.10 N  | 6 N   |
| 30              | 200 N | 1000 | 100 N | 20   | 500 L | 300  | 200 N | 0.04 N  | 0.2 N   | 0.04 N  | 0.09 N  | 4 N   |
| 31              | 200 N | 1500 | 100 N | 30   | 500 L | 300  | 200 N | 0.08 N  | 0.4 N   | 0.08 N  | 0.15 N  | 8 N   |
| 32              | 200 N | 1500 | 100 N | 20 L | 500 L | 500  | 200 N | 0.05 N  | 0.2 N   | 0.05 N  | 0.10 N  | 5 N   |
| 33              | 200 N | 1000 | 100 N | 20   | 500 L | 300  | 200 N | 0.05 N  | 0.2 N   | 0.05 N  | 0.10 N  | 5 N   |
| 34              | 200 N | 1000 | 100 N | 20   | 500 L | 300  | 200 N | 0.04 N  | 0.2 N   | 0.04 N  | 0.09 N  | 4 N   |
| 35              | 200 N | 1000 | 100 N | 20   | 500 L | 500  | 200 N | 0.03 N  | 0.15 N  | 0.03 N  | 0.06 N  | 3 N   |
| 36              | 200 N | 1000 | 100 N | 50   | 500 L | 300  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.006 N | 0.3 N |
| 37              | 200 N | 1000 | 100 N | 200  | 500 L | 200  | 200 N | 0.003 N | 0.015 N | 0.003 N | 0.006 N | 0.3 N |
| 38              | 200 N | 1000 | 100 N | 70   | 500 L | 200  | 200 N | 0.03    | 0.015   | 0.015   | 0.006 N | 0.3 N |
| 39              | 200 N | 1000 | 100 N | 70   | 500 L | 200  | 200 N | 0.003 L | 0.015 N | 0.006   | 0.006 N | 0.3 N |
| 40              | 200 N | 1000 | 100 N | 70   | 500 L | 200  | 200 N | 0.003 N | 0.015 N | 0.003   | 0.006 N | 0.3 N |
| 41              | 200 N | 1000 | 100 N | 70   | 500 L | 200  | 200 N | 0.003 N | 0.015 N | 0.003   | 0.006 N | 0.3 N |
| 42              | 200 N | 1000 | 100 N | 150  | 500 L | 300  | 200 N | 0.003 L | 0.015 N | 0.003   | 0.006 N | 0.3 N |



TABLE 4. -- DATA FOR NONMAGNETIC HEAVY-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | Latitude<br>° ' " | Longitude<br>° ' " | S-Fe% | S-Mg% | S-Ca% | S-Ti% | S-Mn | S-Ag | A-As  | A-Au | S-B | S-Ba   |
|-----------------|-------------------|--------------------|-------|-------|-------|-------|------|------|-------|------|-----|--------|
| 1               | 36:38:42          | 114:04:16          | 1.0   | 0.2   | 10    | 1.0 G | 700  | 1 N  | 500 N | 20 N | 200 | 300    |
| 2               | 36:39:03          | 114:03:54          | 1.0   | 0.2   | 2     | 0.7   | 300  | 1 N  | 500 N | 20 N | 100 | 500    |
| 3               | 36:37:50          | 114:02:33          | 1.5   | 0.2   | 10    | 1.0 G | 700  | 1 N  | 500 N | 20 N | 50  | 700    |
| 4               | 36:36:37          | 114:02:25          | 1.0   | 0.3   | 5     | 0.5   | 300  | 1 N  | 500 N | 20 N | 50  | 700    |
| 5               | 36:36:04          | 114:02:31          | 2     | 1.0   | 15    | 1.0 G | 1500 | 1 N  | 500 N | 20 N | 100 | 300    |
| 6               | 36:35:04          | 114:02:42          | 1.0   | 1.0   | 15    | 1.0 G | 1000 | 1 N  | 500 N | 20 N | 100 | 300    |
| 7               | 36:34:37          | 114:02:40          | 1.0   | 1.0   | 20    | 1.0   | 1500 | 1 N  | 500 N | 20 N | 50  | 500    |
| 8               | 36:34:36          | 114:02:40          | 1.0   | 3     | 15    | 1.0   | 1000 | 1 N  | 500 N | 20 N | 70  | 300    |
| 9               | 36:33:50          | 114:02:38          | 1.5   | 2     | 15    | 1.0 G | 1000 | 1 N  | 500 N | 20 N | 100 | 1000   |
| 10              | 36:33:07          | 114:02:10          | 1.5   | 5     | 15    | 1.0 G | 500  | 1 N  | 500 N | 20 N | 200 | 500    |
| 11              | 36:31:57          | 114:03:00          | 1.0   | 5     | 10    | 1.0   | 300  | 1 N  | 500 N | 20 N | 200 | 50 L   |
| 12              | 36:31:46          | 114:03:44          | 0.5   | 5     | 15    | 0.3   | 500  | 1 N  | 500 N | 20 N | 70  | 200    |
| 13              | 36:31:58          | 114:04:47          | 0.7   | 1.5   | 15    | 0.5   | 500  | 1 N  | 500 N | 20 N | 100 | 200    |
| 14              | 36:32:10          | 114:04:58          | 0.5   | 5     | 10    | 0.3   | 300  | 1 N  | 500 N | 20 N | 100 | 300    |
| 15              | 36:31:59          | 114:05:27          | 1.5   | 3     | 5     | 0.2   | 1000 | 1 N  | 500 N | 20 N | 30  | 150    |
| 16              | 36:35:54          | 114:05:57          | 0.7   | 5     | 10    | 0.5   | 300  | 1 N  | 500 N | 20 N | 50  | 200    |
| 17              | 36:35:10          | 114:05:40          | 0.7   | 5     | 10    | 0.7   | 200  | 1 N  | 500 N | 20 N | 100 | 50 L   |
| 18              | 36:35:10          | 114:05:34          | 1.0   | 7     | 15    | 1.0   | 200  | 1 N  | 500 N | 20 N | 100 | 50 L   |
| 19              | 36:33:46          | 114:05:42          | 0.7   | 7     | 15    | 0.5   | 300  | 1 N  | 500 N | 20 N | 100 | 50 L   |
| 20              | 36:33:31          | 114:05:17          | 0.7   | 7     | 10    | 1.0   | 300  | 1 N  | 500 N | 20 N | 100 | 200    |
| 21              | 36:31:53          | 114:06:13          | 0.5   | 7     | 10    | 0.3   | 300  | 1 N  | 500 N | 20 N | 100 | 200    |
| 22              | 36:31:34          | 114:06:49          | 1.0   | 5     | 10    | 1.0 G | 300  | 1 N  | 500 N | 20 N | 300 | 1000   |
| 23              | 36:31:33          | 114:08:25          | 2     | 0.2   | 0.2   | 1.0 G | 100  | 1 N  | 500 N | 20 N | 300 | 5000 G |
| 24              | 36:31:44          | 114:09:02          | 2     | 1.0   | 0.7   | 1.0 G | 300  | 1 N  | 500 N | 20 N | 500 | 5000 G |
| 25              | 36:32:14          | 114:09:58          | 1.5   | 5     | 10    | 1.0 G | 500  | 1 N  | 500 N | 20 N | 300 | 300    |
| 26              | 36:32:57          | 114:06:58          | 1.0   | 7     | 15    | 1.0   | 300  | 1 N  | 500 N | 20 N | 100 | 50 L   |
| 27              | 36:33:00          | 114:07:02          | 1.5   | 2     | 15    | 1.0 G | 300  | 1 N  | 500 N | 20 N | 300 | 300    |
| 28              | 36:33:28          | 114:08:19          | 1.0   | 3     | 10    | 1.0 G | 200  | 1 N  | 500 N | 20 N | 200 | 700    |
| 29              | 36:33:15          | 114:09:04          | 1.0   | 5     | 15    | 1.0 G | 300  | 1 N  | 500 N | 20 N | 200 | 50     |
| 30              | 36:32:48          | 114:10:03          | 1.5   | 3     | 10    | 1.0 G | 300  | 1 N  | 500 N | 20 N | 300 | 50     |
| 31              | 36:33:47          | 114:10:47          | 0.5   | 5     | 10    | 1.0   | 200  | 1 N  | 500 N | 20 N | 200 | 50 L   |
| 32              | 36:33:50          | 114:10:46          | 1.0   | 5     | 15    | 1.0 G | 200  | 1 N  | 500 N | 20 N | 300 | 300    |
| 33              | 36:34:55          | 114:10:07          | 0.7   | 5     | 10    | 0.7   | 200  | 1 N  | 500 N | 20 N | 100 | 2000   |
| 34              | 36:35:18          | 114:10:05          | 0.5   | 7     | 15    | 0.3   | 300  | 1 N  | 500 N | 20 N | 70  | 50 L   |
| 35              | 36:35:37          | 114:10:54          | 1.5   | 5     | 15    | 1.0 G | 300  | 1 N  | 500 N | 20 N | 300 | 300    |
| 36              | 36:35:45          | 114:11:26          | 1.5   | 2     | 10    | 1.0 G | 500  | 1 N  | 500 N | 20 N | 100 | 5000 G |
| 37              | 36:36:41          | 114:11:10          | 1.5   | 2     | 10    | 1.0 G | 500  | 1 N  | 500 N | 20 N | 500 | 1000   |
| 38              | 36:37:08          | 114:11:17          | 2     | 1.0   | 20    | 1.0 G | 1000 | 1 N  | 500 N | 20 N | 300 | 500    |
| 39              | 36:38:19          | 114:10:29          | 1.0   | 0.5   | 7     | 1.0   | 300  | 1 N  | 500 N | 20 N | 70  | 500    |
| 40              | 36:38:32          | 114:08:58          | 1.0   | 1.5   | 15    | 1.0 G | 1000 | 1 N  | 500 N | 20 N | 100 | 1000   |
| 41              | 36:39:23          | 114:08:12          | 1.0   | 2     | 10    | 1.0 G | 500  | 1 N  | 500 N | 20 N | 70  | 1500   |
| 42              | 36:40:09          | 114:05:57          | 1.0   | 5     | 15    | 1.0   | 500  | 1 N  | 500 N | 20 N | 70  | 700    |

TABLE 4 (cont.). -- DATA FOR NONMAGNETIC HEAVY-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEV

| Sample Site No. | S-Be | S-Bi | S-Cd | S-Co | S-Cr | S-Cu  | S-La   | S-Mo | S-Nb | S-Ni | S-Pb | S-Sb  | S-Sc  | S-Sn |
|-----------------|------|------|------|------|------|-------|--------|------|------|------|------|-------|-------|------|
| 1               | 50   | 70   | 50 N | 10 L | 20   | 100   | 200    | 10 N | 50 L | 10 L | 70   | 200 N | 20    | 20 N |
| 2               | 20   | 20   | 50 N | 10 L | 20   | 10    | 200    | 20   | 50 L | 10 L | 50   | 200 N | 10    | 20 N |
| 3               | 7    | 20 N | 50 N | 10 N | 50   | 10 L  | 500    | 20   | 50 L | 10 L | 100  | 200 N | 30    | 20 N |
| 4               | 10   | 200  | 50 N | 10 L | 50   | 200   | 300    | 10 N | 50 L | 10 L | 70   | 200 N | 50    | 20 N |
| 5               | 200  | 20 N | 50 N | 10 L | 150  | 10 L  | 1000   | 10   | 50 L | 10 L | 150  | 200 N | 50    | 20 N |
| 6               | 100  | 20   | 50 N | 10 N | 20 L | 10 L  | 1000   | 10 N | 50 L | 10 L | 100  | 200 N | 20    | 20 N |
| 7               | 10   | 300  | 50 N | 10 N | 100  | 10 L  | 1000 G | 15   | 50 L | 10 L | 500  | 200 N | 10 L  | 20 N |
| 8               | 7    | 150  | 50 N | 10 N | 20   | 10 L  | 1000 G | 10 N | 50 L | 10 L | 200  | 200 N | 20    | 20 N |
| 9               | 50   | 20 N | 50 N | 10 N | 100  | 10 L  | 500    | 10 N | 50 L | 10 L | 100  | 200 N | 70    | 20 N |
| 10              | 2 N  | 20 N | 50 N | 10 N | 100  | 10 L  | 300    | 10 N | 50 L | 10 L | 100  | 200 N | 30    | 20 N |
| 11              | 2    | 20 N | 50 N | 10 N | 50   | 10    | 500    | 10 N | 50 L | 10 L | 150  | 200 N | 20    | 20 N |
| 12              | 2    | 20 N | 50 N | 10 N | 70   | 15    | 1000   | 10 N | 50 N | 10 L | 150  | 200 N | 20    | 20 N |
| 13              | 2    | 20 N | 50 N | 10 N | 20 L | 20    | 300    | 10 N | 50 L | 10 L | 150  | 200 N | 20    | 20 N |
| 14              | 2 L  | 20 N | 50 N | 10 N | 20 N | 10 L  | 200    | 10 N | 50 L | 10 L | 30   | 200 N | 20    | 20 N |
| 15              | 2 N  | 20 N | 50 N | 10 N | 20 N | 10    | 300    | 10 N | 50 N | 10 L | 150  | 200 N | 20    | 20 N |
| 16              | 2    | 20 N | 50 N | 10 N | 20 L | 10 L  | 100    | 10 N | 50 L | 10 L | 30   | 200 N | 20    | 20 N |
| 17              | 2    | 20 N | 50 N | 10 N | 20   | 10 L  | 200    | 10 N | 50 L | 10 L | 100  | 200 N | 20    | 20 N |
| 18              | 2    | 20 N | 50 N | 10 N | 20   | 10 L  | 200    | 10 N | 50 L | 10 L | 50   | 200 N | 20    | 20 N |
| 19              | 2    | 20 N | 50 N | 10 N | 20   | 10 L  | 100    | 10 N | 50 L | 10 L | 30   | 200 N | 20    | 20 N |
| 20              | 2    | 20 N | 50 N | 10 N | 20   | 10 L  | 200    | 10 N | 50 L | 10 L | 50   | 200 N | 20    | 20 N |
| 21              | 2 N  | 20 N | 50 N | 10 N | 20 N | 10 L  | 100    | 10 N | 50 N | 10 L | 20   | 200 N | 20    | 20 N |
| 22              | 2 N  | 20 N | 50 N | 10 N | 50   | 10 L  | 150    | 10 N | 50 L | 10 L | 100  | 200 N | 20    | 20 N |
| 23              | 2 N  | 20 N | 50 N | 10 N | 100  | 20    | 70     | 10 N | 50 N | 10 L | 50   | 200 N | 100   | 20 N |
| 24              | 2 N  | 20 N | 50 N | 10 N | 150  | 20    | 200    | 10 N | 50 N | 10 L | 100  | 200 N | 100 G | 20 N |
| 25              | 2 N  | 20 N | 50 N | 10 N | 100  | 10 L  | 300    | 10 N | 50 L | 10 L | 100  | 200 N | 20    | 20 N |
| 26              | 2 N  | 20 N | 50 N | 10 N | 100  | 100   | 150    | 10 N | 50 L | 10 L | 50   | 200 N | 20    | 20 N |
| 27              | 2 N  | 20 N | 50 N | 10 N | 200  | 10 L  | 300    | 10 N | 50 L | 10 L | 150  | 200 N | 50    | 20 N |
| 28              | 2 N  | 20 N | 50 N | 10 N | 100  | 10 L  | 200    | 10 N | 50 L | 10 L | 100  | 200 N | 20    | 20 N |
| 29              | 2 N  | 20 N | 50 N | 10 N | 50   | 10 L  | 200    | 10 N | 50 L | 10 L | 50   | 200 N | 20    | 20 N |
| 30              | 2 N  | 20 N | 50 N | 10 N | 150  | 10 L  | 200    | 10 N | 50 L | 10 L | 70   | 200 N | 20    | 20 N |
| 31              | 2    | 20 N | 50 N | 10 N | 100  | 10 L  | 200    | 10 N | 50 L | 10 L | 50   | 200 N | 20    | 20 N |
| 32              | 2    | 20 N | 50 N | 10 N | 100  | 15    | 300    | 10 N | 50 L | 10 L | 200  | 200 N | 20    | 20 N |
| 33              | 2 N  | 20 N | 50 N | 10 N | 30   | 10 L  | 200    | 10   | 50 L | 10 L | 3000 | 200 N | 20    | 20 N |
| 34              | 2    | 20 N | 50 N | 10 N | 20   | 10 L  | 150    | 10 N | 50 L | 10 L | 30   | 200 N | 20    | 20 N |
| 35              | 2 N  | 20 N | 50 N | 10 N | 100  | 10 L  | 300    | 10 N | 50 L | 10 L | 150  | 200 N | 50    | 20 N |
| 36              | 2 L  | 20 N | 50 N | 10 N | 50   | 10 L  | 200    | 10 N | 50 L | 10 L | 50   | 200 N | 30    | 20 N |
| 37              | 7    | 20 N | 50 N | 10 N | 70   | 100   | 300    | 10 N | 50 L | 10 L | 70   | 200 N | 20    | 20 N |
| 38              | 2    | 20 N | 50 N | 10   | 200  | 10000 | 500    | 10 N | 50 L | 100  | 70   | 200 N | 20    | 20 N |
| 39              | 2    | 20 N | 50 N | 10 L | 100  | 200   | 300    | 10 N | 50 L | 20   | 100  | 200 N | 20    | 20 N |
| 40              | 10   | 20 N | 50 N | 10 L | 100  | 20    | 1000   | 10 N | 50 L | 10 N | 100  | 200 N | 20    | 20 N |
| 41              | 2 N  | 20 N | 50 N | 10 N | 100  | 50    | 300    | 10 N | 50 L | 10 N | 300  | 200 N | 20    | 20 N |
| 42              | 2 N  | 20 N | 50 N | 10 N | 100  | 20    | 1000   | 10 N | 50 L | 10 N | 150  | 200 N | 20    | 20 N |

TABLE 4 (cont.). -- DATA FOR NONMAGNETIC HEAVY-MINERAL-CONCENTRATE SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEV

| Sample Site No. | S-Sr  | S-V | S-W   | S-Y  | S-Zn  | S-Zr   | S-Th  | S-Pt | S-Pd |
|-----------------|-------|-----|-------|------|-------|--------|-------|------|------|
| 1               | 200   | 100 | 700   | 300  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 2               | 200   | 70  | 1000  | 150  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 3               | 200   | 70  | 500   | 500  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 4               | 300   | 50  | 1000  | 200  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 5               | 200 L | 100 | 700   | 1000 | 500 N | 1000 G | 200   | 20 N | 10 N |
| 6               | 200 N | 70  | 500   | 1000 | 500 N | 1000 G | 200   | 20 N | 10 N |
| 7               | 200 L | 70  | 300   | 1500 | 500 N | 1000 G | 1000  | 20 N | 10 N |
| 8               | 200 L | 50  | 500   | 1000 | 500 N | 1000 G | 200   | 20 N | 10 N |
| 9               | 5000  | 70  | 100 N | 1000 | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 10              | 200 N | 100 | 100 N | 700  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 11              | 200   | 70  | 100 N | 500  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 12              | 200   | 50  | 100 N | 300  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 13              | 200 N | 50  | 100 N | 500  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 14              | 200 N | 20  | 100 N | 100  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 15              | 200 L | 50  | 100 N | 200  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 16              | 200   | 50  | 100 N | 100  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 17              | 200 N | 70  | 100 N | 200  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 18              | 200 N | 70  | 100 N | 200  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 19              | 200 N | 50  | 100 N | 100  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 20              | 200 N | 70  | 100 N | 200  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 21              | 200   | 20  | 100 N | 70   | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 22              | 1500  | 70  | 100 N | 500  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 23              | 500   | 100 | 100 N | 1000 | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 24              | 200   | 200 | 100 N | 1000 | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 25              | 200 L | 100 | 100 N | 500  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 26              | 200 L | 50  | 100 N | 200  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 27              | 500   | 200 | 100 N | 700  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 28              | 200   | 70  | 100 N | 500  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 29              | 200 L | 70  | 100 N | 500  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 30              | 200 L | 100 | 100 N | 500  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 31              | 200 N | 50  | 100 N | 200  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 32              | 200 N | 100 | 100 N | 500  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 33              | 200 L | 70  | 100 N | 200  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 34              | 200 N | 50  | 100 N | 100  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 35              | 200 L | 100 | 100 N | 500  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 36              | 500   | 70  | 100 N | 300  | 500 N | 1000 G | 200 N | 20 N | 10 N |
| 37              | 200   | 100 | 100 N | 500  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 38              | 500   | 150 | 100 N | 500  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 39              | 500   | 70  | 100 N | 200  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 40              | 500   | 100 | 100 N | 300  | 500 N | 1000 G | 200   | 20 N | 10 N |
| 41              | 300   | 100 | 100 N | 300  | 500 N | 1000 G | 200 L | 20 N | 10 N |
| 42              | 200   | 70  | 100 N | 300  | 500 N | 1000 G | 200 L | 20 N | 10 N |

TABLE 5. --- DATA FOR ROCK SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | Latitude | Longitude | Rock type           | S-Fe% | S-Mg% | S-Ca% | S-Ti% | S-Mn | S-Ag  | S-As  | S-Au |
|-----------------|----------|-----------|---------------------|-------|-------|-------|-------|------|-------|-------|------|
| 3               | 36:37:50 | 114:02:33 | Pegmatite selvage   | 3     | 0.5   | 0.3   | 0.2   | 5000 | 0.5 N | 200 N | 10 N |
| 13              | 36:31:58 | 114:04:47 | Granodiorite gneiss | 5     | 1.0   | 2     | 0.2   | 5000 | 0.5 N | 200 N | 10 N |
| 39              | 36:38:19 | 114:10:29 | Granite schist      | 3     | 1.5   | 1.5   | 0.2   | 1000 | 0.5 N | 200 N | 10 N |
| 43              | 36:37:05 | 114:09:57 | Gossan              | 15    | 2     | 1.0   | 0.1   | 2000 | 7     | 200 N | 10 N |
| 44              | 36:37:06 | 114:09:58 | Granodiorite gneiss | 5     | 1.0   | 1.5   | 0.1   | 2000 | 0.5 N | 200 N | 10 N |
| 45              | 36:37:06 | 114:09:57 | Hornblendite        | 10    | 5     | 2     | 0.3   | 2000 | 0.5 N | 200 N | 10 N |
| 46              | 36:37:08 | 114:09:59 | Granodiorite gneiss | 5     | 0.5   | 1.0   | 0.1   | 1000 | 0.5 N | 200 N | 10 N |
| 47              | 36:37:08 | 114:09:52 | Amphibolite         | 7     | 5     | 3     | 0.3   | 1500 | 0.5 N | 200 N | 10 N |
| 48              | 36:37:11 | 114:09:51 | Granodiorite gneiss | 3     | 0.7   | 1.0   | 0.1   | 1500 | 0.5 N | 200 N | 10 N |
| 49              | 36:37:11 | 114:09:51 | Amphibolite         | 3     | 0.7   | 1.0   | 0.3   | 500  | 0.5 N | 200 N | 10 N |
| 50              | 36:37:04 | 114:09:55 | Amphibolite         | 10    | 3     | 3     | 0.5   | 2000 | 0.5 N | 200 N | 10 N |
| 51              | 36:37:03 | 114:09:54 | Amphibolite         | 10    | 3     | 3     | 0.5   | 3000 | 0.5 N | 200 N | 10 N |
| 52              | 36:37:01 | 114:09:53 | Amphibolite schist  | 10    | 3     | 3     | 0.7   | 2000 | 0.5 N | 200 N | 10 N |
| 53              | 36:37:01 | 114:09:53 | Granite gneiss      | 10    | 5     | 5     | 0.5   | 3000 | 0.5 N | 200 N | 10 N |
| 54              | 36:37:05 | 114:09:47 | Amphibolite         | 5     | 2     | 2     | 0.2   | 2000 | 0.5 N | 200 N | 10 N |
| 55              | 36:37:05 | 114:09:47 | Granite gneiss      | 10    | 3     | 0.1   | 0.7   | 1000 | 0.5 N | 200 N | 10 N |
| 56              | 36:36:57 | 114:09:59 | Amphibolite         | 3     | 1.0   | 0.1   | 0.1   | 300  | 0.5 N | 200 N | 10 N |
| 57              | 36:36:57 | 114:09:59 | Granite gneiss      | 15    | 2     | 3     | 1.0   | 2000 | 0.5 N | 200 N | 10 N |
| 58              | 36:37:09 | 114:10:03 | Amphibolite         | 3     | 0.7   | 1.0   | 0.15  | 500  | 0.5 N | 200 N | 10 N |
| 59              | 36:37:31 | 114:08:42 | Amphibolite         | 10    | 1.5   | 0.7   | 0.7   | 1000 | 0.5 N | 200 N | 10 N |
| 60              | 36:37:31 | 114:08:42 | Gossan              | 10    | 5     | 3     | 0.5   | 3000 | 0.5 N | 200 N | 10 N |
| 61              | 36:37:31 | 114:08:42 | Pegmatite selvage   | 20    | 5     | 2     | 0.3   | 2000 | 20    | 200 N | 10 N |
| 62              | 36:37:31 | 114:08:43 | Granodiorite gneiss | 3     | 1.5   | 0.5   | 0.1   | 300  | 10    | 700   | 10 N |
| 63              | 36:37:31 | 114:08:42 | Amphibolite         | 5     | 2     | 1.0   | 0.2   | 2000 | 0.5 N | 200 N | 10 N |
| 64              | 36:37:31 | 114:08:42 | Granodiorite gneiss | 15    | 3     | 3     | 1.0   | 3000 | 0.5 N | 200 N | 10 N |
| 65              | 36:37:31 | 114:08:42 | Pegmatite           | 0.5   | 0.3   | 0.2   | 0.03  | 200  | 0.5 N | 200 N | 10 N |
| 66              | 36:37:27 | 114:08:48 | Gossan              | 15    | 5     | 5     | 0.5   | 3000 | 10    | 200 N | 10 N |
| 67              | 36:37:27 | 114:08:48 | Gossan              | 15    | 5     | 5     | 0.3   | 3000 | 2     | 200 N | 10 N |
| 68              | 36:37:32 | 114:08:43 | Amphibolite         | 20    | 5     | 5     | 0.2   | 3000 | 10    | 200 N | 10 N |
| 69              | 36:37:32 | 114:08:50 | Amphibolite         | 10    | 5     | 2     | 0.3   | 1500 | 5     | 200 N | 10 N |
| 70              | 36:38:12 | 114:09:12 | Pegmatite           | 2     | 0.2   | 0.3   | 0.01  | 3000 | 0.5 N | 200 N | 10 N |
| 71              | 36:37:19 | 114:07:23 | Granodiorite gneiss | 10    | 1.0   | 0.5   | 0.3   | 3000 | 0.5 N | 200 N | 10 N |
| 72              | 36:37:17 | 114:07:23 | Pegmatite           | 0.7   | 0.05  | 0.2   | 0.02  | 300  | 0.5 N | 200 N | 10 N |
| 73              | 36:37:17 | 114:07:23 | 2-mica schist       | 7     | 1.5   | 0.5   | 0.5   | 3000 | 0.5 N | 200 N | 10 N |
| 74              | 36:38:14 | 114:06:02 | Amphibolite         | 10    | 5     | 2     | 0.5   | 1000 | 0.5 N | 200 N | 10 N |
| 75              | 36:37:48 | 114:05:15 | Pegmatite           | 0.5   | 0.2   | 0.05  | 0.03  | 100  | 0.5 N | 200 N | 10 N |
| 76              | 36:37:48 | 114:05:15 | 2-mica schist       | 5     | 2     | 1.0   | 0.5   | 2000 | 0.5 N | 200 N | 10 N |
| 77              | 36:37:48 | 114:05:15 | Pegmatite/Schist    | 5     | 0.7   | 1.0   | 0.3   | 2000 | 1.5   | 200 N | 10 N |
| 78              | 36:37:49 | 114:05:12 | Muscovite schist    | 5     | 0.7   | 0.5   | 0.3   | 300  | 0.5 N | 200 N | 10 N |
| 79              | 36:37:46 | 114:05:06 | Granite gneiss      | 3     | 0.2   | 0.5   | 0.2   | 300  | 0.5 N | 200 N | 10 N |
| 80              | 36:38:41 | 114:04:13 | Biotite schist      | 10    | 2     | 0.7   | 0.1   | 3000 | 0.5 N | 200 N | 10 N |

TABLE 5 (cont.). -- DATA FOR ROCK SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | S-B  | S-Ba | S-Be | S-Bi | S-Cd | S-Co | S-Cr | S-Cu  | S-La | S-Mo | S-Nb | S-Ni   | S-Pb | S-Sb  |
|-----------------|------|------|------|------|------|------|------|-------|------|------|------|--------|------|-------|
| 3               | 10   | 500  | 1 L  | 10 N | 20 N | 5 L  | 50   | 70    | 50   | 5 N  | 20 L | 50     | 30   | 100 N |
| 13              | 20   | 300  | 1    | 10 N | 20 N | 20   | 150  | 70    | 70   | 5 N  | 20 L | 50     | 30   | 100 N |
| 39              | 10 L | 700  | 2    | 10 N | 20 N | 20   | 150  | 20    | 50   | 5 N  | 20 L | 100    | 20   | 100 N |
| 43              | 50   | 50   | 1 L  | 10 N | 20 N | 300  | 1500 | 20000 | 20 N | 5 N  | 20 L | 5000 G | 20   | 100 N |
| 44              | 20   | 50   | 1 L  | 10 N | 20 N | 100  | 20   | 100   | 20 N | 5 N  | 20 L | 1000   | 10 L | 100 N |
| 45              | 20   | 200  | 1 L  | 10 N | 20 N | 200  | 2000 | 500   | 20 N | 5 N  | 20 L | 700    | 10 L | 100 N |
| 46              | 100  | 300  | 1 L  | 10 N | 20 N | 20   | 20   | 100   | 20 L | 5 N  | 20 L | 500    | 10 L | 100 N |
| 47              | 10   | 20 L | 1 L  | 10 N | 20 N | 200  | 2000 | 300   | 20 N | 5 N  | 20 L | 500    | 10 L | 100 N |
| 48              | 50   | 200  | 1 L  | 10 N | 20 N | 5 L  | 20   | 10    | 20 N | 5 N  | 20 L | 10     | 10 L | 100 N |
| 49              | 10 L | 1000 | 1 L  | 10 N | 20 N | 5 L  | 50   | 100   | 200  | 5 N  | 20 L | 10     | 100  | 100 N |
| 50              | 20   | 100  | 1 N  | 10 N | 20 N | 150  | 1000 | 200   | 20 N | 5 N  | 20 L | 200    | 10 L | 100 N |
| 51              | 20   | 100  | 1 N  | 10 N | 20 N | 150  | 300  | 150   | 20 N | 5 N  | 20 L | 150    | 10 L | 100 N |
| 52              | 20   | 150  | 1 L  | 10 N | 20 N | 150  | 200  | 200   | 20 N | 5 N  | 20 L | 100    | 10 L | 100 N |
| 53              | 20   | 50   | 1 L  | 10 N | 20 N | 150  | 3000 | 200   | 20 N | 5 N  | 20 L | 500    | 10 L | 100 N |
| 54              | 15   | 200  | 1 L  | 10 N | 20 N | 20   | 100  | 70    | 20 L | 5 N  | 20 L | 20     | 10 L | 100 N |
| 55              | 10   | 20   | 1 L  | 10 N | 20 N | 5 L  | 2000 | 5 L   | 20 N | 5 N  | 20 L | 200    | 10 L | 100 N |
| 56              | 10   | 20   | 1 L  | 10 N | 20 N | 5 L  | 20   | 5 L   | 20 N | 5 N  | 20 L | 50     | 10 L | 100 N |
| 57              | 20   | 200  | 1 L  | 10 N | 20 N | 70   | 100  | 150   | 20 L | 5 N  | 20 L | 100    | 10 L | 100 N |
| 58              | 10   | 700  | 1 L  | 10 N | 20 N | 10   | 20   | 50    | 20 L | 5 N  | 20 L | 15     | 20   | 100 N |
| 59              | 70   | 700  | 1 L  | 10 N | 20 N | 20   | 150  | 300   | 20 L | 10   | 20 L | 100    | 70   | 100 N |
| 60              | 20   | 50   | 1 N  | 10 N | 20 N | 200  | 5000 | 1000  | 20 N | 5 N  | 20 L | 1000   | 10 L | 100 N |
| 61              | 30   | 300  | 1 N  | 10 N | 20 N | 200  | 3000 | 20000 | 20 N | 5 N  | 20 L | 2000   | 10 L | 100 N |
| 62              | 10   | 100  | 1    | 10 N | 20 N | 70   | 70   | 3000  | 20 L | 10   | 20 L | 1500   | 1500 | 100 N |
| 63              | 10   | 100  | 1    | 10 N | 20 N | 20   | 100  | 200   | 20 L | 5 N  | 20 L | 100    | 15   | 100 N |
| 64              | 20   | 200  | 1 L  | 10 N | 20 N | 70   | 150  | 200   | 20 L | 5 N  | 20 L | 100    | 10   | 100 N |
| 65              | 10 L | 1000 | 1 L  | 10 N | 20 N | 5 L  | 20   | 50    | 50   | 5 N  | 20 N | 10     | 20   | 100 N |
| 66              | 20   | 100  | 1 N  | 10 N | 20 N | 100  | 5000 | 10000 | 20 N | 5 N  | 20 L | 2000   | 10 L | 100 N |
| 67              | 20   | 200  | 1 N  | 10 N | 20 N | 100  | 3000 | 5000  | 20 N | 5 N  | 20 L | 2000   | 10 L | 100 N |
| 68              | 20   | 70   | 1 N  | 10 N | 20 N | 200  | 2000 | 10000 | 20 N | 5 N  | 20 L | 5000   | 10 L | 100 N |
| 69              | 10   | 50   | 1 N  | 10 N | 20 N | 100  | 3000 | 7000  | 20 N | 5 N  | 20 L | 3000   | 20   | 100 N |
| 70              | 10 L | 700  | 1    | 10 N | 20 N | 5 L  | 20   | 10    | 70   | 5 N  | 20 N | 5 L    | 50   | 100 N |
| 70              | 10   | 150  | 2    | 10 N | 20 N | 20   | 70   | 2000  | 50   | 5 N  | 20 L | 100    | 20   | 100 N |
| 71              | 20   | 300  | 5    | 10 N | 20 N | 70   | 100  | 20    | 50   | 5 N  | 20 L | 100    | 10 L | 100 N |
| 72              | 10   | 300  | 1 L  | 10 N | 20 N | 5 L  | 20   | 10    | 50   | 5 N  | 20 N | 5 L    | 30   | 100 N |
| 73              | 10 L | 300  | 2    | 10 N | 20 N | 20   | 100  | 200   | 100  | 5 N  | 20 L | 50     | 20   | 100 N |
| 74              | 10   | 20   | 1 L  | 10 N | 20 N | 100  | 2000 | 70    | 20 N | 5 N  | 20 L | 1000   | 10   | 100 N |
| 75              | 10   | 150  | 5    | 10 N | 20 N | 5 L  | 20   | 20    | 50   | 5 N  | 20 L | 5 L    | 10 L | 100 N |
| 76              | 10   | 500  | 5    | 10 N | 20 N | 20   | 100  | 50    | 100  | 5 N  | 20 L | 70     | 50   | 100 N |
| 77              | 500  | 500  | 5    | 10 N | 20 N | 20   | 100  | 70    | 70   | 5 N  | 20 L | 50     | 70   | 100 N |
| 78              | 100  | 300  | 2    | 10 N | 20 N | 20   | 100  | 50    | 70   | 5 N  | 20 L | 50     | 20   | 100 N |
| 79              | 10 L | 700  | 3    | 10 N | 20 N | 5 L  | 20   | 10    | 50   | 5 N  | 20 L | 5 L    | 20   | 100 N |
| 80              | 10   | 150  | 5    | 10 N | 20 N | 15   | 100  | 50    | 100  | 5 N  | 20 L | 20     | 30   | 100 N |

TABLE 5 (cont.). -- DATA FOR ROCK SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | S-Sc | S-Sn | S-Sr  | S-V  | S-W  | S-Y  | S-Zn  | S-Zr | S-Th  | F-Au    | F-Pt    | F-Pd    |
|-----------------|------|------|-------|------|------|------|-------|------|-------|---------|---------|---------|
| 3               | 30   | 10 N | 100 L | 20   | 50 N | 100  | 200 N | 200  | 100 N | 0.01    | 0.005 N | 0.005   |
| 13              | 15   | 10 N | 100 N | 150  | 50 N | 30   | 200 N | 100  | 100 N | 0.01    | 0.005 N | 0.001 L |
| 39              | 15   | 10 N | 500   | 100  | 50 N | 20   | 200 N | 70   | 100 N | 0.001 N | 0.005 N | 0.001 L |
| 43              | 15   | 10 N | 100 N | 70   | 50 N | 10 L | 200   | 10 L | 100 N | 0.5     | 0.5     | 2       |
| 44              | 20   | 10 N | 500   | 150  | 50 N | 10   | 200 N | 70   | 100 N | 0.001   | 0.005 N | 0.03    |
| 45              | 20   | 10 N | 200   | 150  | 50 N | 10   | 200 N | 50   | 100 N | 0.02    | 0.02    | 0.03    |
| 46              | 15   | 10 N | 300   | 70   | 50 N | 10   | 200 N | 50   | 100 N | 0.001 N | 0.005 N | 0.002   |
| 47              | 20   | 10 N | 100 N | 150  | 50 N | 10 L | 200 N | 50   | 100 N | 0.001 N | 0.015   | 0.005   |
| 48              | 15   | 10 N | 300   | 70   | 50 N | 10 L | 200 N | 30   | 100 N | 0.001 N | 0.005 N | 0.001 L |
| 49              | 10   | 10 N | 300   | 100  | 50 N | 30   | 200 N | 300  | 100 N | 0.001 N | 0.005 N | 0.001 N |
| 50              | 30   | 10 N | 200   | 300  | 50 N | 20   | 200 N | 70   | 100 N | 0.001 N | 0.005 N | 0.001 N |
| 51              | 30   | 10 N | 300   | 300  | 50 N | 20   | 200 N | 70   | 100 N | 0.001 N | 0.005 N | 0.001 L |
| 52              | 30   | 10 N | 300   | 300  | 50 N | 20   | 200 N | 70   | 100 N | 0.001 N | 0.02    | 0.007   |
| 53              | 30   | 10 N | 100 N | 200  | 50 N | 15   | 200 L | 50   | 100 N | 0.001 N | 0.005   | 0.005   |
| 54              | 20   | 10 N | 700   | 200  | 50 N | 10 L | 200 N | 70   | 100 N | 0.001 N | 0.005 N | 0.001 N |
| 55              | 20   | 10 N | 100 N | 200  | 50 N | 10   | 200 N | 50   | 100 N | 0.007   | 0.005 N | 0.001 N |
| 56              | 10   | 10 N | 100 N | 30   | 50 N | 10 L | 200 N | 100  | 100 N | 0.001 L | 0.010   | 0.005   |
| 57              | 30   | 10 N | 200   | 300  | 50 N | 30   | 200 N | 100  | 100 N | 0.001 N | 0.005 N | 0.002   |
| 58              | 5    | 10 N | 500   | 100  | 50 N | 10 L | 200 N | 150  | 100 N | 0.001 L | 0.005 N | 0.002   |
| 59              | 30   | 10 N | 100   | 200  | 50 N | 30   | 200 N | 200  | 100 N | 0.010   | 0.05    | 0.05    |
| 60              | 30   | 10 N | 100   | 200  | 50 N | 10   | 200 N | 50   | 100 N | 0.5     | 0.5     | 1.5     |
| 61              | 30   | 10 N | 200   | 200  | 50 N | 10   | 200 L | 30   | 100 N | 0.05    | 1.0     | 2       |
| 62              | 5    | 10 N | 200   | 50   | 50 N | 10 L | 700   | 20   | 100 N | 0.002   | 0.005   | 0.03    |
| 63              | 20   | 10 N | 200   | 200  | 50 N | 10 L | 200 N | 70   | 100 N | 0.005   | 0.005   | 0.007   |
| 64              | 50   | 10 N | 200   | 500  | 50 N | 30   | 200 N | 150  | 100 N | 0.001 N | 0.005 N | 0.005   |
| 65              | 5 N  | 10 N | 200   | 10   | 50 N | 10 L | 200 N | 10 N | 100 N | 0.001 N | 0.005 N | 0.002   |
| 66              | 50   | 10 N | 200   | 200  | 50 N | 15   | 200 N | 50   | 100 N | 0.3     | 0.5     | 1.0     |
| 67              | 30   | 10 N | 200   | 150  | 50 N | 15   | 200 N | 30   | 100 N | 0.2     | 0.7     | 1.0     |
| 68              | 20   | 10 N | 150   | 100  | 50 N | 10   | 200 N | 30   | 100 N | 0.3     | 0.005   | 0.5     |
| 69              | 20   | 10 N | 100 N | 100  | 50 N | 10   | 200 L | 30   | 100 N | 0.2     | 0.07    | 0.3     |
| 70              | 30   | 10 N | 200   | 10 L | 50 N | 70   | 200 N | 100  | 100 N | 0.001 N | 0.005 N | 0.001 L |
| 70              | 15   | 10 N | 100 N | 100  | 50 N | 50   | 200 N | 100  | 100 N | 0.02    | 0.005 N | 0.002   |
| 71              | 50   | 20   | 150   | 500  | 50 N | 20   | 200 N | 70   | 100 N | 0.001 N | 0.005 N | 0.001 N |
| 72              | 5    | 10 N | 100 N | 10   | 50 N | 10 L | 200 N | 20   | 100 N | 0.001 N | 0.005 N | 0.001 N |
| 73              | 10   | 10 N | 100   | 150  | 50 N | 50   | 200 N | 300  | 100 N | 0.001 N | 0.005 N | 0.001 L |
| 74              | 20   | 10 N | 100 N | 200  | 50 N | 10   | 200 N | 50   | 100 N | 0.010   | 0.010   | 0.007   |
| 75              | 5 L  | 10 N | 100 N | 10 L | 50 N | 10 L | 200 N | 20   | 100 N | 0.05    | 0.005 N | 0.001 L |
| 76              | 20   | 10 N | 200   | 100  | 50 N | 30   | 200 N | 200  | 100 N | 0.010   | 0.005 N | 0.001 L |
| 77              | 20   | 10 N | 200   | 100  | 50 N | 50   | 200 N | 200  | 100 N | 0.05    | 0.005 N | 0.001 L |
| 78              | 10   | 10 N | 100   | 100  | 50 N | 20   | 200 N | 200  | 100 N | 0.03    | 0.005 N | 0.001 L |
| 79              | 20   | 10 N | 100   | 10 L | 50 N | 50   | 200 N | 200  | 100 N | 0.010   | 0.005 N | 0.001 N |
| 80              | 30   | 10 N | 200   | 200  | 50 N | 50   | 200 L | 300  | 100 N | 0.001 N | 0.005 N | 0.003   |

TABLE 5 (cont.). -- DATA FOR ROCK SAMPLES, VIRGIN MOUNTAINS INSTANT STUDY AREA, NEVADA

| Sample Site No. | F-Rh    | F-Ru  | F-Ir   |
|-----------------|---------|-------|--------|
| 3               | 0.002 N | 0.2 N | 0.10 N |
| 13              | 0.002 N | 0.2 N | 0.10 N |
| 39              | 0.002 N | 0.2 N | 0.10 N |
| 43              | 0.05    | 0.2 N | 0.3    |
| 44              | 0.003   | 0.2 N | 0.10 N |
| 45              | 0.005   | 0.2 N | 0.10 N |
| 46              | 0.002 N | 0.2 N | 0.10 N |
| 47              | 0.002 N | 0.2 N | 0.10 N |
| 48              | 0.002 N | 0.2 N | 0.10 N |
| 49              | 0.002 N | 0.2 N | 0.10 N |
| 50              | 0.002 N | 0.2 N | 0.10 N |
| 51              | 0.002 N | 0.2 N | 0.10 N |
| 52              | 0.002 N | 0.2 N | 0.10 N |
| 53              | 0.002 N | 0.2 N | 0.10 N |
| 54              | 0.002 N | 0.2 N | 0.10 N |
| 55              | 0.002 N | 0.2 N | 0.10 N |
| 56              | 0.002 N | 0.2 N | 0.10 N |
| 57              | 0.002 N | 0.2 N | 0.10 N |
| 58              | 0.002 N | 0.2 N | 0.10 N |
| 59              | 0.002 N | 0.2 N | 0.10 N |
| 60              | 0.02    | 0.2 N | 0.2    |
| 61              | 0.02    | 0.2 N | 0.10 N |
| 62              | 0.002 N | 0.2 N | 0.10 N |
| 63              | 0.002 N | 0.2 N | 0.10 N |
| 64              | 0.002 N | 0.2 N | 0.10 N |
| 65              | 0.002 N | 0.2 N | 0.10 N |
| 66              | 0.010   | 0.2 N | 0.10 N |
| 67              | 0.05    | 0.2 N | 0.10 N |
| 68              | 0.007   | 0.2 N | 0.10 N |
| 69              | 0.002   | 0.2 N | 0.10 N |
| 70              | 0.002 N | 0.2 N | 0.10 N |
| 70              | 0.002 N | 0.2 N | 0.10 N |
| 71              | 0.002 N | 0.2 N | 0.10 N |
| 72              | 0.002 N | 0.2 N | 0.10 N |
| 73              | 0.002 N | 0.2 N | 0.10 N |
| 74              | 0.002 N | 0.2 N | 0.10 N |
| 75              | 0.002 N | 0.2 N | 0.10 N |
| 76              | 0.002 N | 0.2 N | 0.10 N |
| 77              | 0.002 N | 0.2 N | 0.10 N |
| 78              | 0.002 N | 0.2 N | 0.10 N |
| 79              | 0.002 N | 0.2 N | 0.10 N |
| 80              | 0.002 N | 0.2 N | 0.10 N |