

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

**Spectrographic analyses of insoluble-residue samples,
Harrison 1° x 2° quadrangle, Missouri and Arkansas:
Drill holes nos. 38 and 43**

by

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the U.S. Geological Survey.

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INTRODUCTION

Geochemical studies of the Harrison 1° x 2° quadrangle, Missouri and Arkansas, were begun in 1983 as part of a multidisciplinary study of the quadrangle by the U.S. Geological Survey, the Missouri Division of Geology and Land Survey, and the Arkansas Geological Commission. The purpose of the study was to assess the mineral resource potential of the area by integrated geologic, geochemical, and geophysical studies.

The geochemical work has been directed at the characterization of the sedimentary rocks in the quadrangle through spectrographic analyses of dilute-hydrochloric-acid insoluble-residue samples of whole rock from widely spaced drill holes. Drill holes have been selected for study from the sample libraries of the Missouri Division of Geology and Land Survey and the Arkansas Geological Commission. None of the holes are company confidential and none intersect economically significant mineralized ground.

The analytical results for drill hole no. 38 and drill hole no. 43 are given in this report. Drill hole no. 38 is located in sec. 36, T. 20 N., R. 19 W. in Boone County, Arkansas; and drill hole no. 43 is located in sec. 17, T. 20 N., R. 17 W. in Marion Co., Arkansas. Data for the insoluble-residue samples in drill holes 38 and 43 are listed in tables 1 and 2, respectively. These are two core holes that are part of a drilling program and therefore have no well and county numbers. The numbers used for these two holes are the same numbers that were used in the 1976 V-A2 Arkansas Zinc drilling program, and can be located by those numbers at the Arkansas Geologic Commission.

PREPARATION AND ANALYSIS OF SAMPLES

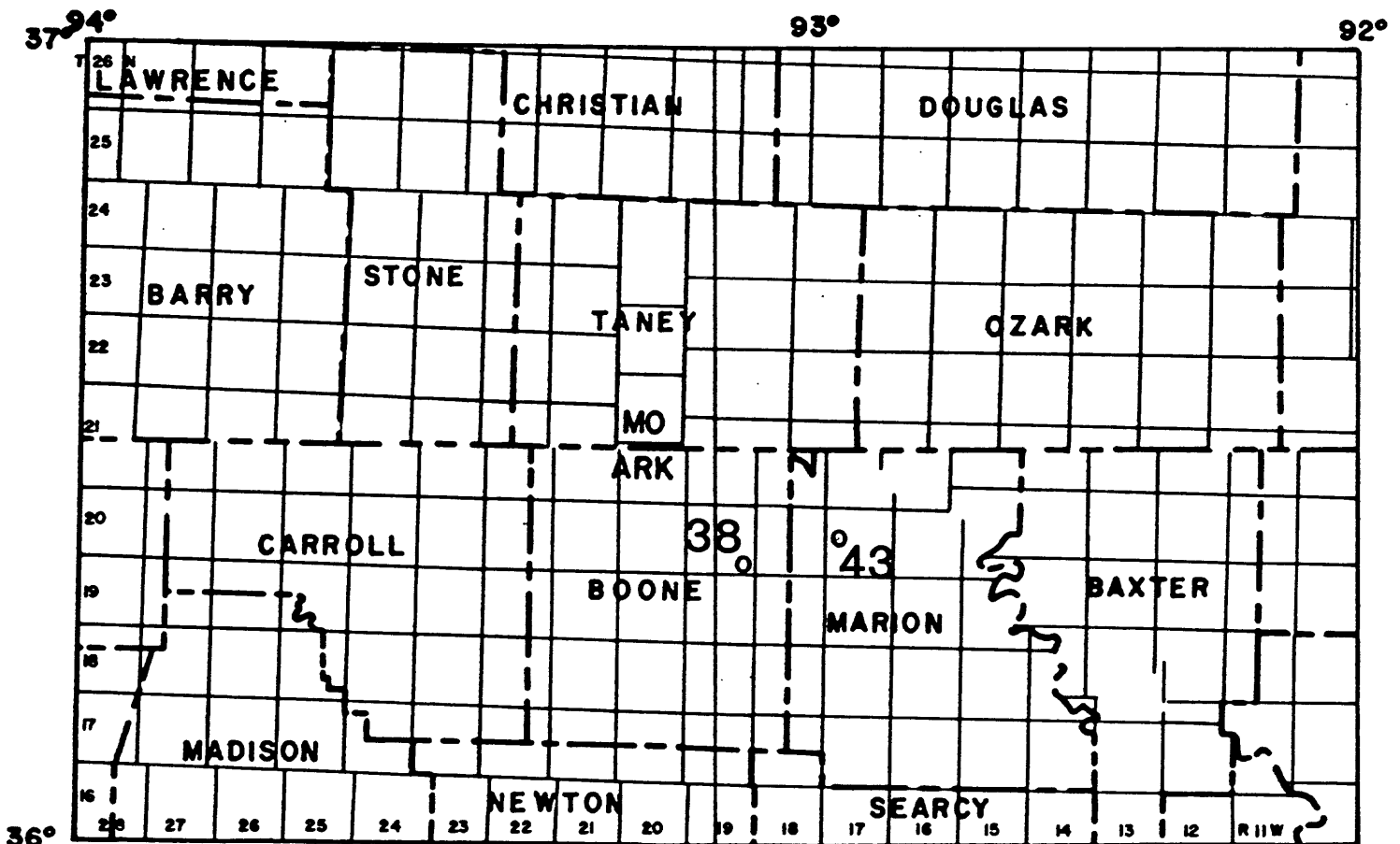
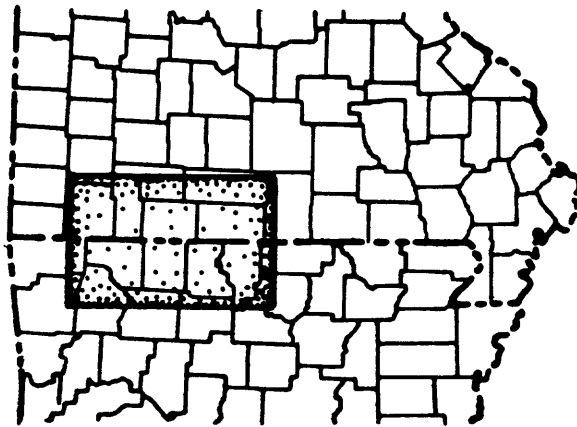
Insoluble residues were prepared by dissolving approximately 80 grams of crushed carbonate rock in repeated applications of 1:5 hydrochloric acid until the carbonate was removed. The samples were then filtered and dried overnight at 50°C.

The samples were then pulverized to minus 140 mesh (0.105 mm) in a vertical grinder equipped with ceramic plates. Some insoluble-residue samples contained only a few milligrams of material, and these were hand ground in an agate mortar and pestle. A hand magnet was passed over the insoluble-residue samples before grinding to remove filings or chips of drill bit that might have been present.

Each sample was analyzed semiquantitatively for 31 elements using a six-step D.C.-arc optical-emission spectrographic method (Grimes and Marranzino, 1968).

The semiquantitative spectrographic values are reported as six steps per order of magnitude (1, 0.7, 0.5, 0.3, 0.2, and 0.15) and are approximate geometric midpoints of the concentration ranges. The precision is shown to be within one adjoining reporting interval on each side of the reported value 83 percent of the time and within two adjoining intervals on each side of the reported value 96 percent of the time (Motooka and Grimes, 1976).

The visual lower limits of determination for the 31 elements that were determined spectrographically for this report are as follows:



HARRISON 1° X 2° QUADRANGLE

Locations of drill holes discussed in this report

For those given in percent:

Calcium	0.05
Iron	0.05
Magnesium	0.02
Titanium	0.002

For those given in ppm:

Antimony	100	Molybdenum	5
Arsenic	200	Nickel	5
Barium	20	Niobium	20
Beryllium	1	Scandium	5
Bismuth	10	Silver	0.5
Boron	10	Strontium	100
Cadmium	20	Thorium	100
Chromium	10	Tin	10
Cobalt	5	Tungsten	50
Copper	5	Vanadium	10
Gold	10	Yttrium	10
Lanthanum	20	Zinc	200
Lead	10	Zirconium	10
Manganese	10		

DESCRIPTION OF DATA TABLES

Each sample is identified by an eight-character code, beginning with the letter H, signifying Harrison. The next number signifies the USGS drill-hole number. The letter R follows this number and signifies insoluble residue. The last four digits identify the depth of the sample from the drill-hole collar. Most samples are composites of 10-foot intervals; some are composites of thicker intervals, dependent upon the original sample interval and upon the amount of sample material available for analysis.

The stratigraphic unit of the sample is identified by a coded number in the last column (tables 1 and 2) following the thorium column. The code and formation names are as follows:

<u>Code</u>	<u>Formation</u>
19	Roubidoux Formation
22	Powell Dolomite
23	Everton Formation
31	Undifferentiated Mississippian Units
39	Jefferson City-Cotter Undifferentiated

EXPLANATION OF DATA

The columns in tables 1 and 2 have headings of sample, elements, and formation. The letter S over the columns signifies emission-spectrographic data.

Iron, magnesium, calcium, and titanium are reported in percent (%); all other elements are in parts per million. Other symbols shown on the tables are:

- N = Not detected at the limit of determination shown;
- < = Detected, but below the limit of determination shown; and
- > = Greater than the limit of determination shown.

Because of the formatting used in the computer program that produced tables 1-3, some of the elements listed in these tables (Fe, 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.

RASS

Upon completion of all analytical work, the information from the samples is entered into a computer-based file called RASS (Rock Analysis Storage System). This RASS file contains both descriptive geological information and analytical data. Any or all of this information may be retrieved and placed in a standard form (STATPAC) for computerized statistical manipulation or publication (VanTrump and Miesch, 1977).

ACKNOWLEDGMENTS

The authors wish to thank the Missouri Division of Geology and Land Survey--Dr. Wallace B. Howe, former Director, and Dr. James H. Williams, Director--and the Arkansas Geological Commission, Dr. Norman F. Williams, State Geologist, for making these drill-hole samples available from their sample libraries.

REFERENCES

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- Missouri Geological Survey, 1979, Geologic Map of Missouri: Rolla, Missouri, scale 1:500,000.
- Motooka, J. M., and Grimes, D. J., 1976, Analytical precision of one-sixth order semiquantitative spectrographic analyses: U.S. Geological Survey Circular 738, 25 p.
- VanTrump, George, Jr., and Miesch, A. T., 1977, The U.S. Geological Survey RASS-STATPAC system for management and statistical reduction of geochemical data: Computers and Geosciences, v. 3, p. 475-488.

TABLE 1.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2
 QUADRANGLE, MISSOURI AND ARKANSAS.

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

Sample	Fe-ppt. s	Mg-ppt. s	Ca-ppt. s	Ti-ppt. s	Mn-pptm s	Ag-pptm s	As-pptm s	Au-pptm s	B-pptm s	Ba-pptm s
H38R0043	10.00	1.00	.20	.500	1,000	N	N	N	500	500
H38R0057	20.00	.10	.05	.100	100	N	N	N	70	100
H38R0067	3.00	1.00	.10	.300	50	.5	N	N	200	300
H38R0077	1.00	.50	.05	.200	30	N	N	N	100	200
H38R0087	1.00	.70	<.05	.200	30	<.5	N	N	100	300
H38R0096	10.00	.70	<.05	.300	30	.7	N	N	300	500
H38R0106	.30	.50	<.05	.300	20	N	N	N	150	500
H38R0116	.20	.30	.10	.200	10	N	N	N	100	150
H38R0125	10.00	1.00	.05	.300	20	.7	N	N	200	500
H38R0134	7.00	1.00	<.05	.300	20	.5	N	N	200	300
H38R0148	3.00	1.00	.05	.300	30	.5	N	N	200	300
H38R0153	5.00	.20	.15	.100	10	.7	N	N	50	200
H38R0163	5.00	.70	.15	.300	20	.5	N	N	200	200
H38R0173	3.00	1.00	.07	.300	30	<.5	N	N	300	300
H38R0183	3.00	.70	.15	.200	20	N	N	N	150	200
H38R0192	7.00	.20	.07	.100	15	.5	N	N	100	150
H38R0201	10.00	.30	.05	.200	20	.7	N	N	100	300
H38R0211	3.00	1.00	<.05	.300	30	<.5	N	N	150	300
H38R0220	3.00	.50	.07	.200	15	N	N	N	70	200
H38R0229	1.50	.70	<.05	.300	50	N	N	N	200	300
H38R0238	.15	.05	<.05	.020	10	N	N	N	100	100
H38R0248	.20	.10	.07	.050	10	N	N	N	70	150
H38R0258	.50	.50	.05	.200	15	.5	N	N	100	100
H38R0276	.05	.07	.05	.030	10	N	N	N	50	200
H38R0289	.15	.20	.15	.100	15	N	N	N	70	150
H38R0298	.10	.50	.15	.200	10	N	N	N	70	200
H38R0318	3.00	1.00	.10	.300	20	1.0	N	N	200	200
H38R0328	5.00	1.00	.10	.500	50	.5	N	N	200	300
H38R0337	.30	.70	.10	.200	15	<.5	N	N	200	200
H38R0348	10.00	1.00	.07	.500	100	.5	N	N	200	500
H38R0356	.10	.10	.10	.100	10	N	N	N	100	70
H38R0366	.10	.05	.10	.020	10	N	N	N	100	100
H38R0375	1.00	1.00	.10	.300	20	.5	N	N	150	200
H38R0385	1.00	1.00	.10	.500	20	.5	N	N	200	200
H38R0394	.10	.70	.50	.070	10	N	N	N	100	150
H38R0414	.10	.05	.10	.020	10	N	N	N	70	100
H38R0423	5.00	1.00	.20	.500	70	.7	N	N	200	500
H38R0433	5.00	.70	.07	.500	50	<.5	N	N	150	500
H38R0442	1.00	.30	.05	.500	20	N	N	N	100	300
H38R0452	.30	.30	.05	.200	20	N	N	N	100	200
H38R0462	.20	.05	<.05	.070	10	N	N	N	50	70
H38R0472	10.00	.50	.07	.300	<10	N	200	N	100	200
H38R0482	1.00	.30	<.05	.300	15	N	N	N	150	500
H38R0491	1.00	.10	<.05	.100	15	N	N	N	100	150
H38R0501	1.00	7.00	.50	.150	20	N	N	N	100	150

TABLE 1.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2
 QUADRANGLE, MISSOURI AND ARKANSAS.--Continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mn-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s
H38R0043	2.0	N	N	100	100	100	<20	<5	<20	300	30
H38R0057	1.5	N	N	7	20	70	N	5	N	500	<10
H38R0067	1.5	N	N	5	150	20	N	<5	N	50	10
H38R0077	1.0	N	N	<5	30	15	N	<5	N	15	50
H38R0087	1.0	N	N	<5	50	15	N	15	N	10	10
H38R0096	1.0	N	N	15	50	100	N	5	<20	70	50
H38R0106	1.0	N	N	<5	10	7	N	N	N	7	20
H38R0116	<1.0	N	N	<5	30	5	N	30	N	7	10
H38R0125	1.0	N	N	20	50	150	N	10	N	70	100
H38R0134	1.5	N	N	20	70	100	N	15	N	50	100
H38R0148	1.5	N	N	15	70	50	30	5	N	50	100
H38R0153	<1.0	N	N	N	100	150	N	15	N	10	100
H38R0163	1.0	N	N	15	50	500	30	20	N	70	150
H38R0173	2.0	N	N	15	100	100	30	7	N	50	100
H38R0183	1.0	N	N	5	70	50	N	15	N	30	150
H38R0192	<1.0	N	N	10	20	100	N	15	N	70	150
H38R0201	1.0	N	N	20	50	200	N	15	N	100	200
H38R0211	1.5	N	N	10	50	30	N	15	N	50	50
H38R0220	1.0	N	N	7	50	30	N	15	N	20	100
H38R0229	2.0	N	N	10	100	50	N	30	N	50	50
H38R0238	N	N	N	<5	15	5	N	<5	N	7	<10
H38R0248	N	N	N	<5	15	7	N	<5	N	7	<10
H38R0258	1.0	N	N	<5	50	10	N	7	N	15	20
H38R0276	N	N	N	<5	15	<5	N	N	N	7	<10
H38R0289	N	N	N	<5	20	7	N	5	N	10	10
H38R0298	<1.0	N	N	<5	30	5	N	<5	N	7	<10
H38R0318	1.5	N	N	7	100	100	N	30	N	50	50
H38R0328	1.5	N	N	15	100	100	N	100	N	70	150
H38R0337	1.5	N	N	<5	50	7	N	7	N	7	100
H38R0348	1.5	N	N	15	100	150	N	70	<20	70	200
H38R0356	N	N	N	<5	20	<5	N	<5	N	7	<10
H38R0366	N	N	N	<5	15	5	N	<5	N	7	30
H38R0375	1.5	N	N	<5	70	15	N	5	N	15	50
H38R0385	1.5	N	N	<5	70	15	N	10	N	15	30
H38R0394	N	N	N	<5	15	<5	N	<5	N	5	10
H38R0414	N	N	N	<5	15	<5	N	<5	N	7	<10
H38R0423	1.0	N	N	20	100	200	N	50	N	100	150
H38R0433	1.0	N	N	10	50	100	N	20	<20	50	100
H38R0442	<1.0	N	N	<5	50	10	N	5	N	10	<10
H38R0452	<1.0	N	N	<5	20	10	N	<5	N	7	10
H38R0462	N	N	N	<5	10	10	N	<5	N	10	10
H38R0472	1.5	N	N	<5	100	50	N	15	N	30	200
H38R0482	1.0	N	N	<5	50	15	N	10	N	20	10
H38R0491	N	N	N	<5	20	15	N	10	N	10	<10
H38R0501	<1.0	N	N	<5	20	15	N	15	N	15	<10

TABLE 1.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2
 QUADRANGLE, MISSOURI AND ARKANSAS.--Cont Inued

Sample	Sb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Form
H38R0043	N	15	N	<100	150	<50	20	200	100	N	23
H38R0057	N	5	N	<100	50	<50	15	300	30	N	23
H38R0067	N	7	N	<100	200	<50	N	<200	200	N	23
H38R0077	N	5	N	<100	<100	<50	N	N	100	N	23
H38R0087	N	5	N	150	50	<50	N	N	100	N	22
H38R0096	N	10	N	<100	70	<50	N	N	100	N	22
H38R0106	N	5	N	100	50	<50	N	N	150	N	22
H38R0116	N	<5	N	<100	50	<50	N	N	50	N	22
H38R0125	N	7	N	<100	50	<50	N	N	100	N	22
H38R0134	N	7	N	<100	50	<50	N	N	70	N	22
H38R0148	N	7	N	<100	70	<50	N	<200	100	N	22
H38R0153	N	<5	N	<100	100	<50	N	<200	50	N	22
H38R0163	N	5	N	<100	50	<50	N	1,000	50	N	22
H38R0173	N	7	N	<100	70	<50	N	N	70	N	22
H38R0183	N	5	N	<100	70	<50	N	N	100	N	22
H38R0192	N	<5	N	<100	50	<50	N	N	30	N	22
H38R0201	N	5	N	<100	50	<50	N	N	100	N	22
H38R0211	N	7	N	<100	70	<50	N	N	100	N	22
H38R0220	N	<5	N	<100	50	<50	N	N	50	N	22
H38R0229	N	10	N	<100	100	<50	N	N	100	N	39
H38R0238	N	N	N	100	15	<50	N	N	10	N	39
H38R0248	N	N	N	<100	30	<50	N	N	70	N	39
H38R0258	N	5	N	<100	50	<50	N	<200	50	N	39
H38R0276	N	N	N	<100	20	<50	N	N	50	N	39
H38R0289	N	N	N	<100	20	<50	N	<200	30	N	39
H38R0298	N	<5	N	<100	50	<50	N	<200	70	N	39
H38R0318	N	7	N	<100	100	<50	N	1,500	70	N	39
H38R0328	N	7	N	<100	100	<50	N	<200	100	N	39
H38R0337	N	<5	N	<100	100	<50	N	200	150	N	39
H38R0348	N	7	N	<100	50	<50	N	200	100	N	39
H38R0356	N	N	N	<100	50	<50	N	<200	50	N	39
H38R0366	N	N	N	200	15	<50	N	N	20	N	39
H38R0375	N	7	N	<100	100	<50	N	500	100	N	39
H38R0385	N	7	N	<100	100	<50	N	500	100	N	39
H38R0394	N	N	N	300	20	<50	N	N	30	N	39
H38R0414	N	N	N	<100	15	<50	N	N	<10	N	39
H38R0423	N	10	N	500	70	<50	N	N	70	N	39
H38R0433	N	7	N	100	50	<50	<10	N	200	N	39
H38R0442	N	5	N	<100	50	N	N	N	100	N	39
H38R0452	N	<5	N	<100	70	N	N	<200	100	N	39
H38R0462	N	N	N	100	15	N	N	<200	50	N	39
H38R0472	N	5	N	<100	50	N	N	1,500	100	N	39
H38R0482	N	5	N	300	20	N	N	3,000	700	N	39
H38R0491	N	<5	N	100	15	N	N	N	50	N	39
H38R0501	N	<5	N	<100	30	N	N	N	50	N	39

TABLE 1.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2
 QUADRANGLE, MISSOURI AND ARKANSAS.--Continued

Sample	Fe-pct. %	Mg-pct. %	Ca-pct. %	Ti-pct. %	Mn-ppm S	Ag-ppm S	As-ppm S	Au-ppm S	B-ppm S	Be-ppm S
H38R0511	2.00	.30	<.05	.200	50	N	N	N	100	300
H38R0520	2.00	1.00	.50	.500	50	.5	N	N	200	500
H38R0530	2.00	.70	.10	.500	50	N	N	N	200	500
H38R0540	.20	.15	.07	.100	10	N	N	N	50	200
H38R0549	.20	.10	.05	.150	10	N	N	N	50	500
H38R0558	.70	.20	.10	.100	10	N	N	N	70	200
H38R0567	10.00	.20	.15	.070	10	N	<200	N	50	150
H38R0577	2.00	.70	.07	.500	50	N	N	N	200	500
H38R0586	1.50	.50	.15	.300	20	N	N	N	200	300
H38R0596	.50	.02	<.05	.050	<10	N	N	N	50	100
H38R0604	.30	.50	.15	.200	10	N	N	N	100	200
H38R0605	.30	.05	<.05	.070	<10	N	N	N	70	200
H38R0616	.20	.20	.20	.070	10	N	N	N	100	200
H38R0625	1.00	.50	.15	.200	20	N	N	N	70	200
H38R0645	2.00	.70	.30	.300	30	<.5	N	N	100	500
H38R0654	1.50	.20	.05	.150	20	N	N	N	50	200
H38R0664	3.00	1.00	.20	.500	50	N	N	N	150	500
H38R0674	2.00	.15	<.05	.100	20	N	N	N	100	200
H38R0682	20.00	.10	.05	.100	20	.5	700	N	100	150
H38R0692	2.00	.30	<.05	.200	20	N	N	N	100	200
H38R0702	.30	.07	<.05	.070	15	N	N	N	20	200
H38R0712	.50	.05	<.05	.100	10	N	N	N	30	150
H38R0722	1.00	.02	<.05	.015	20	N	N	N	70	70
H38R0731	15.00	.50	.15	.300	100	.5	N	N	100	300
H38R0740	1.00	.05	.05	.150	10	N	N	N	100	300
H38R0750	.70	.50	.05	.200	15	N	N	N	70	300
H38R0759	10.00	.50	.05	.300	50	N	N	N	200	300
H38R0769	2.00	.07	<.05	.200	15	N	N	N	50	150
H38R0779	1.00	.05	.05	.050	10	N	N	N	50	100
H38R0789	1.00	.10	<.05	.200	15	N	N	N	50	150
H38R0799	5.00	.70	.20	.300	50	<.5	N	N	150	300
H38R0809	2.00	.70	.10	.500	50	N	N	N	100	300
H38R0817	10.00	.70	.50	.300	100	1.0	200	N	100	500
H38R0826	10.00	.20	.05	.100	15	<.5	<200	N	50	200
H38R0836	1.50	.50	.20	.200	20	N	N	N	100	300
H38R0846	.70	.50	.20	.070	10	N	N	N	100	150
H38R0875	1.50	.50	.05	.300	50	N	N	N	150	300
H38R0884	1.00	.20	.05	.100	15	N	N	N	50	200
H38R0894	2.00	.50	.05	.300	50	N	N	N	150	200
H38R0904	.20	.10	.10	.050	10	N	N	N	50	50
H38R0913	10.00	1.00	.05	.500	50	N	N	N	200	500
H38R0923	1.00	.07	.07	.050	10	N	N	N	50	50
H38R0933	.20	.07	.07	.050	10	N	N	N	20	30
H38R0942	3.00	.50	.05	.500	50	N	N	N	100	300
H38R0951	.50	.10	.05	.100	15	N	N	N	50	150

TABLE 1.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2 QUADRANGLE, MISSOURI AND ARKANSAS.--Continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mn-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s
H38R0511	<1.0	N	N	5	20	30	N	10	N	20	50
H38R0520	1.0	N	N	10	100	50	N	100	N	50	100
H38R0530	1.5	N	N	5	100	30	N	50	<20	30	50
H38R0540	N	N	N	<5	20	<5	N	7	N	7	<10
H38R0549	N	N	N	<5	20	5	N	<5	N	7	10
H38R0558	N	N	N	<5	20	5	N	5	N	10	<10
H38R0567	N	N	N	<5	15	15	N	15	N	10	10
H38R0577	1.0	N	N	7	100	70	N	15	N	50	100
H38R0586	<1.0	N	N	<5	30	30	N	20	N	20	70
H38R0596	N	N	N	<5	15	7	N	5	N	7	50
H38R0604	<1.0	N	N	<5	50	5	N	5	N	7	10
H38R0605	N	N	N	<5	15	7	N	5	N	7	<10
H38R0616	N	N	N	<5	15	5	N	7	N	10	<10
H38R0625	<1.0	N	N	<5	20	15	N	15	N	15	10
H38R0645	<1.0	N	N	5	50	30	N	20	N	50	100
H38R0654	<1.0	N	N	5	20	10	N	10	N	10	10
H38R0664	1.0	N	N	15	100	150	N	20	<20	50	100
H38R0674	<1.0	N	N	<5	20	15	N	5	N	10	150
H38R0682	<1.0	N	N	7	15	50	N	30	N	30	150
H38R0692	<1.0	N	N	<5	30	15	N	10	N	15	15
H38R0702	N	N	N	<5	15	<5	N	5	N	7	<10
H38R0712	N	N	N	<5	15	5	N	<5	N	10	<10
H38R0722	N	N	N	<5	15	5	N	<5	N	10	<10
H38R0731	<1.0	N	N	20	50	100	N	30	N	70	150
H38R0740	N	N	N	<5	15	10	N	7	N	10	10
H38R0750	<1.0	N	N	<5	20	15	N	15	N	30	<10
H38R0759	1.5	N	N	5	100	50	N	100	N	30	150
H38R0769	<1.0	N	N	<5	7	10	N	7	N	15	<10
H38R0779	N	N	N	<5	15	15	N	5	N	10	<10
H38R0789	<1.0	N	N	<5	30	15	N	10	N	10	<10
H38R0799	1.0	N	N	10	100	50	N	15	N	30	100
H38R0809	1.0	N	N	10	70	30	N	20	N	50	20
H38R0817	1.0	N	N	15	50	500	N	30	N	100	100
H38R0826	<1.0	N	N	5	15	30	N	20	N	20	10
H38R0836	<1.0	N	N	<5	20	15	N	30	N	20	100
H38R0846	<1.0	N	N	<5	15	10	N	20	N	10	20
H38R0875	1.0	N	N	5	50	15	N	10	N	20	15
H38R0884	N	N	N	5	20	10	N	5	N	15	<10
H38R0894	1.0	N	N	7	100	30	N	30	N	30	50
H38R0904	N	N	N	<5	15	50	N	7	N	7	<10
H38R0913	1.0	N	N	10	150	70	N	20	<20	50	30
H38R0923	N	N	150	N	10	20	N	5	N	7	<10
H38R0933	N	N	N	N	15	5	N	5	N	7	N
H38R0942	<1.0	N	N	5	30	30	N	20	N	30	150
H38R0951	N	N	N	<5	20	10	N	5	N	10	10

TABLE 1.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2 QUADRANGLE, MISSOURI AND ARKANSAS.--Continued

Sample	Sb-ppm s	Sc-ppm s	Sn-ppm s	Sp-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Form
H38R0511	N	<5	N	<100	20	N	N	N	70	N	39
H38R0520	N	10	N	<100	100	N	N	N	150	N	39
H38R0530	N	7	N	100	100	N	N	N	150	N	39
H38R0540	N	N	N	<100	30	N	N	N	50	N	39
H38R0549	N	N	N	<100	20	N	N	<200	100	N	39
H38R0558	N	N	N	1,000	30	N	N	300	50	N	39
H38R0567	N	N	N	<100	20	N	N	200	50	N	39
H38R0577	N	7	N	<100	70	N	N	<200	100	N	39
H38R0586	N	5	N	<100	50	N	N	N	100	N	39
H38R0596	N	N	N	<100	10	N	N	N	30	N	39
H38R0604	N	<5	N	100	70	N	N	200	70	N	39
H38R0605	N	N	N	<100	15	N	N	N	50	N	39
H38R0616	N	N	N	300	20	<50	N	<200	50	N	39
H38R0625	N	<5	N	100	50	<50	N	N	70	N	39
H38R0645	N	5	N	<100	30	<50	N	<200	200	N	39
H38R0654	N	<5	N	<100	20	<50	N	N	100	N	39
H38R0664	N	7	N	<100	70	<50	N	N	150	N	39
H38R0674	N	N	N	<100	30	<50	N	N	30	N	39
H38R0682	N	<5	N	<100	20	<50	N	200	20	N	39
H38R0692	N	<5	N	<100	50	<50	N	N	70	N	39
H38R0702	N	N	N	<100	20	<50	N	N	30	N	39
H38R0712	N	N	N	<100	20	<50	N	N	50	N	39
H38R0722	N	N	N	<100	10	<50	N	<200	N	N	39
H38R0731	N	5	N	<100	30	<50	N	<200	100	N	39
H38R0740	N	N	N	<100	20	<50	N	N	100	N	39
H38R0750	N	<5	N	<100	50	<50	N	N	150	N	39
H38R0759	N	5	N	<100	70	<50	N	N	100	N	39
H38R0769	N	N	N	<100	30	<50	N	N	70	N	39
H38R0779	N	N	N	<100	15	<50	N	300	20	N	39
H38R0789	N	<5	N	<100	20	<50	N	N	50	N	39
H38R0799	N	5	N	<100	50	<50	N	N	100	N	39
H38R0809	N	5	N	<100	50	<50	<10	>10,000	100	N	39
H38R0817	N	5	20	<100	50	<50	10	7,000	200	N	39
H38R0826	N	N	N	<100	20	<50	<10	200	30	N	39
H38R0836	N	<5	N	<100	50	<50	N	<200	70	N	39
H38R0846	N	N	N	<100	20	<50	N	N	20	N	39
H38R0875	N	<5	N	<100	50	<50	N	N	100	N	39
H38R0884	N	N	N	<100	20	<50	N	N	100	N	39
H38R0894	N	5	N	<100	50	<50	N	N	50	N	39
H38R0904	N	N	N	<100	15	<50	N	<200	10	N	39
H38R0913	N	10	N	<100	150	<50	N	10,000	100	N	39
H38R0923	N	N	N	<100	10	<50	N	2,000	20	N	39
H38R0933	N	N	N	<100	15	<50	N	N	<10	N	39
H38R0942	N	5	N	<100	50	<50	<10	N	100	N	39
H38R0951	N	<5	N	<100	30	<50	N	N	50	N	39

TABLE 1.--- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2
 QUADRANGLE, MISSOURI AND ARKANSAS.--Continued

Sample	Fe-pct. s	Mg-pct. s	Ce-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
H38R0960	.50	.05	<.05	.050	10	N	N	N	30	100
H38R0970	1.50	.30	<.05	.200	20	N	N	N	50	150
H38R0980	.70	.10	.20	.050	10	N	N	N	50	50
H38R0990	1.00	.20	.10	.100	15	N	N	N	50	150
H38R1000	1.00	.20	<.05	.150	10	N	N	N	70	150

TABLE 1.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2
 QUADRANGLE, MISSOURI AND ARKANSAS.--Continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s
H38R0960	N	N	N	N	15	5	N	5	N	7	<10
H38R0970	<1.0	N	N	<5	50	15	N	15	N	15	20
H38R0980	N	N	N	<5	15	<5	N	7	N	7	<10
H38R0990	N	N	N	<5	20	7	N	7	N	10	10
H38R1000	<1.0	N	N	<5	20	10	N	7	N	10	<10

TABLE 1.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE NO. H38, HARRISON 1 X 2
 QUADRANGLE, MISSOURI AND ARKANSAS.--Continued

Sample	Sb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Form
H38R0960	N	N	N	<100	15	<50	N	N	70	N	39
H38R0970	N	<5	N	<100	50	<50	<10	200	50	N	39
H38R0980	N	N	N	<100	15	<50	<10	N	N	N	39
H38R0990	N	N	N	<100	30	<50	N	500	50	N	39
H38R1000	N	N	N	<100	30	<50	N	N	50	N	39

TABLE 2.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE,
MISSOURI AND ARKANSAS.

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

Sample	Fe-pct. %	Mg-pct. %	Ca-pct. %	Ti-pct. %	Mn-ppm g	Ag-ppm g	As-ppm g	Au-ppm g	B-ppm g	Ba-ppm g
H43R0020	.10	.30	.50	.030	10	N	N	N	150	100
H43R0031	.15	.20	.20	.070	15	N	N	N	150	100
H43R0041	.50	.07	.05	.070	20	N	N	N	100	150
H43R0051	2.00	.70	<.05	.300	50	.5	N	N	200	200
H43R0061	3.00	.70	<.05	.500	70	<.5	N	N	200	500
H43R0079	3.00	.50	.10	.500	100	.5	N	N	150	200
H43R0089	.50	.50	.50	.100	20	N	N	N	100	300
H43R0099	3.00	.70	<.05	.200	70	<.5	N	N	200	300
H43R0119	1.50	.20	.20	.070	10	<.5	N	N	100	70
H43R0128	3.00	.50	<.05	.150	30	<.5	N	N	150	200
H43R0138	.50	.20	.10	.070	20	N	N	N	150	50
H43R0148	1.00	.07	.05	.070	15	N	N	N	100	150
H43R0158	.07	.10	.05	.100	20	<.5	N	N	150	200
H43R0168	1.50	.50	.15	.200	30	<.5	N	N	150	200
H43R0178	1.00	.15	<.05	.150	30	<.5	N	N	100	500
H43R0188	2.00	.30	<.05	.300	50	N	N	N	100	500
H43R0198	.30	.07	.05	.070	10	N	N	N	30	300
H43R0208	.30	.30	<.05	.150	20	<.5	N	N	200	200
H43R0218	.15	.10	.15	.070	10	N	N	N	50	150
H43R0228	.05	.07	.15	.010	N	N	N	N	150	50
H43R0238	3.00	.10	.10	.200	10	1.0	N	N	100	70
H43R0239	3.00	.30	N	.700	50	.5	N	N	150	300
H43R0249	.10	.05	<.05	.020	N	N	N	N	70	20
H43R0259	1.50	.10	N	.300	20	N	N	N	50	300
H43R0269	.10	.05	.07	.020	N	N	N	N	100	30
H43R0279	1.50	.50	.15	.200	20	N	N	N	150	200
H43R0289	2.00	.30	N	.300	50	<.5	N	N	150	300
H43R0299	1.00	.20	<.05	.200	20	N	N	N	100	150
H43R0309	.50	.10	N	.150	20	1.5	N	N	50	100
H43R0319	1.50	.70	<.05	.200	30	N	N	N	150	100
H43R0329	2.00	.50	<.05	.300	70	<.5	N	N	100	150
H43R0339	1.50	.70	.10	.200	50	<.5	N	N	100	200
H43R0349	1.50	.20	N	.150	15	N	N	N	70	100
H43R0359	3.00	.50	<.05	.300	50	N	N	N	100	200
H43R0369	.30	.15	<.05	.070	10	N	N	N	50	150
H43R0379	.15	.15	<.05	.100	<10	N	N	N	150	70
H43R0389	.20	.07	<.05	.100	10	N	N	N	100	100
H43R0399	.20	.07	.05	.050	<10	N	N	N	70	50
H43R0405	2.00	.50	.10	.200	20	<.5	N	N	150	150
H43R0424	2.00	.70	<.05	.300	30	<.5	N	N	150	200
H43R0433	3.00	.20	<.05	.150	15	<.5	N	N	100	150
H43R0443	.50	.05	.05	.020	<10	N	N	N	70	30
H43R0453	.50	.15	<.05	.070	10	N	N	N	100	150
H43R0462	1.50	.15	<.05	.200	20	N	N	N	70	200
H43R0472	1.00	.30	<.05	.150	15	N	N	N	200	100

TABLE 2.--- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE,
MISSOURI AND ARKANSAS.---Continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mn-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s
H43R0020	N	N	N	N	N	<5	N	N	N	5	N
H43R0031	N	N	N	N	N	<5	N	N	N	<5	10
H43R0041	N	N	N	5	N	10	N	N	N	5	10
H43R0051	3.0	N	N	7	70	30	N	N	<20	30	20
H43R0061	2.0	N	N	10	70	100	N	N	<20	50	70
H43R0079	1.0	N	N	7	30	50	N	N	<20	30	100
H43R0089	N	N	N	N	N	7	N	N	N	5	N
H43R0099	1.5	N	N	7	50	30	N	N	N	30	50
H43R0119	<1.0	N	N	5	N	20	N	N	N	20	150
H43R0128	1.0	N	N	7	15	20	N	N	N	30	100
H43R0138	N	N	N	5	N	15	N	N	N	10	N
H43R0148	N	N	N	5	N	10	N	N	N	10	10
H43R0158	N	N	N	5	N	20	N	N	N	10	70
H43R0168	<1.0	N	N	5	20	15	N	N	N	15	100
H43R0178	N	N	N	<5	15	10	N	N	N	10	10
H43R0188	1.0	N	N	5	50	20	N	N	<20	15	30
H43R0198	N	N	N	N	N	5	N	N	N	5	N
H43R0208	1.0	N	N	N	20	15	N	N	<5	5	200
H43R0218	N	N	N	N	N	7	N	N	<5	5	N
H43R0228	N	N	N	N	N	<5	N	N	N	N	N
H43R0238	<1.0	N	N	5	15	150	N	N	<20	30	50
H43R0239	1.0	N	N	7	70	100	N	N	<20	50	70
H43R0249	N	N	N	N	N	<5	N	N	N	N	N
H43R0259	<1.0	N	N	5	10	20	N	N	N	15	N
H43R0269	N	N	N	N	N	<5	N	N	N	N	N
H43R0279	1.0	N	N	5	20	20	N	N	N	15	20
H43R0289	1.5	N	N	5	50	50	N	N	<20	20	30
H43R0299	1.0	N	N	5	30	30	N	N	<20	15	15
H43R0309	N	N	N	<5	10	10	N	N	N	7	N
H43R0319	1.5	N	N	5	30	20	N	N	N	30	20
H43R0329	<1.0	N	N	5	50	30	N	N	N	30	50
H43R0339	1.0	N	N	5	30	15	N	N	N	15	20
H43R0349	<1.0	N	N	<5	15	15	N	N	N	10	15
H43R0359	<1.0	N	N	5	30	30	N	N	N	20	70
H43R0369	N	N	N	N	N	7	N	N	<20	<5	10
H43R0379	N	N	N	N	N	<5	N	N	N	N	N
H43R0389	N	N	100	N	N	<5	N	N	N	N	20
H43R0399	N	N	N	N	N	5	N	N	N	N	N
H43R0405	1.0	N	N	5	30	20	N	N	<20	20	20
H43R0424	<1.0	N	N	7	50	30	N	N	<20	30	30
H43R0433	<1.0	N	N	5	30	20	N	N	<20	15	15
H43R0443	N	N	N	<5	<10	10	N	N	N	<5	N
H43R0453	N	N	N	5	5	5	N	N	<20	5	N
H43R0462	<1.0	N	N	5	10	20	N	N	<20	20	30
H43R0472	<1.0	N	N	5	15	10	N	N	N	15	N

TABLE 2.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE,
MISSOURI AND ARKANSAS.--Continued

Sample	Sb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Form
H43R0020	N	N	N	N	10	<50	N	N	30	N	31
H43R0031	N	N	N	N	15	<50	N	N	20	N	31
H43R0041	N	N	N	N	15	<50	N	N	30	N	31
H43R0051	N	5	N	N	70	<50	N	<200	70	N	31
H43R0061	N	7	N	N	100	<50	N	N	300	N	22
H43R0079	N	<5	N	N	50	<50	N	N	100	N	39
H43R0089	N	N	N	300	15	<50	N	N	200	N	39
H43R0099	N	5	N	N	70	<50	N	<200	100	N	39
H43R0119	N	N	N	N	20	<50	N	2,000	30	N	39
H43R0128	N	<5	N	N	50	<50	N	<200	100	N	39
H43R0138	N	N	N	N	20	<50	N	N	15	N	39
H43R0148	N	N	N	200	10	<50	N	N	20	N	39
H43R0158	N	N	300	N	15	<50	N	N	50	N	39
H43R0168	N	N	N	N	30	<50	N	N	70	N	39
H43R0178	N	N	N	100	20	<50	N	N	70	N	39
H43R0188	N	<5	N	N	50	<50	N	N	150	N	39
H43R0198	N	N	N	N	10	<50	N	N	70	N	39
H43R0208	N	N	150	N	30	<50	N	200	70	N	39
H43R0218	N	N	N	N	10	<50	N	N	50	N	39
H43R0228	N	N	N	100	<10	<50	N	N	15	N	39
H43R0238	N	N	N	N	20	<50	N	N	70	N	39
H43R0239	N	5	N	N	30	<50	N	N	150	N	39
H43R0249	N	N	N	N	<10	<50	N	N	15	N	39
H43R0259	N	N	N	N	10	<50	N	N	150	N	39
H43R0269	N	N	N	1,000	<10	<50	N	N	20	N	39
H43R0279	N	<5	N	N	30	<50	N	N	300	N	39
H43R0289	N	5	N	N	100	<50	N	N	100	N	39
H43R0299	N	<5	N	100	50	<50	N	N	70	N	39
H43R0309	N	N	N	N	15	<50	N	N	100	N	39
H43R0319	N	5	N	N	70	<50	N	N	70	N	39
H43R0329	N	<5	N	N	30	<50	N	N	70	N	39
H43R0339	N	<5	N	N	30	<50	N	N	150	N	39
H43R0349	N	N	N	N	20	<50	N	N	50	N	39
H43R0359	N	<5	N	N	30	<50	N	N	70	N	39
H43R0369	N	N	N	N	<10	<50	N	N	70	N	39
H43R0379	N	N	N	<100	<10	<50	N	N	15	N	39
H43R0389	N	N	N	N	10	<50	N	>10,000	200	N	39
H43R0399	N	N	N	N	<10	<50	N	<200	70	N	39
H43R0405	N	<5	N	N	50	<50	N	<200	70	N	39
H43R0424	N	<5	N	N	50	<50	N	N	100	N	39
H43R0433	N	N	N	N	30	<50	N	N	50	N	39
H43R0443	N	N	N	N	<10	<50	N	200	10	N	39
H43R0453	N	N	N	N	20	<50	N	N	50	N	39
H43R0462	N	N	N	N	20	<50	N	N	70	N	39
H43R0472	N	N	N	N	30	<50	N	N	70	N	39

TABLE 2.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE, MISSOURI AND ARKANSAS.--Continued

Sample	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
H43R0491	1.00	.10	<.05	.200	10	N	N	N	150	70
H43R0501	1.50	.07	<.05	.050	15	<.5	N	N	30	200
H43R0511	2.00	.15	<.05	.150	20	<.5	N	N	50	300
H43R0521	2.00	.70	N	.700	30	<.5	N	N	150	300
H43R0531	1.50	.50	.05	.200	20	<.5	N	N	150	150
H43R0541	.30	.05	<.05	.030	<10	N	N	N	70	30
H43R0551	2.00	.70	.30	.300	70	N	N	N	150	150
H43R0561	.20	.07	<.05	.050	<10	N	N	N	50	20
H43R0581	1.50	.50	.10	.300	20	N	N	N	100	300
H43R0591	2.00	.30	<.05	.200	15	N	N	N	100	200
H43R0601	1.50	.30	.20	.200	10	N	N	N	70	200
H43R0606	.20	.30	.20	.050	<10	N	N	N	50	100
H43R0619	1.50	.30	<.05	.300	20	<.5	N	N	150	200
H43R0625	.30	.15	.15	.070	N	N	N	N	100	50
H43R0635	2.00	.70	.30	.200	30	<.5	N	N	150	150
H43R0645	1.00	.05	.05	.030	<10	N	N	N	50	20
H43R0655	1.50	.50	.50	.100	15	N	N	N	70	150
H43R0665	2.00	.30	.05	.200	15	<.5	N	N	100	100
H43R0675	1.50	.15	<.05	.100	10	N	N	N	70	50
H43R0685	1.50	.50	<.05	.300	30	.5	N	N	100	200
H43R0695	3.00	.50	<.05	.300	70	.5	N	N	150	300
H43R0705	3.00	.70	<.05	.300	50	<.5	N	N	150	300
H43R0715	2.00	.30	.05	.200	70	<.5	N	N	100	150
H43R0725	3.00	.70	.05	.700	100	1.0	N	N	100	300
H43R0735	.05	.02	<.05	.007	N	N	N	N	70	20
H43R0744	2.00	.70	N	.300	50	<.5	N	N	150	200
H43R0763	1.00	.20	<.05	.150	<10	N	N	N	100	100
H43R0773	.20	.02	<.05	.015	N	N	N	N	70	<20
H43R0783	1.00	.30	N	.150	10	<.5	N	N	70	100
H43R0793	.05	.07	.10	.002	N	N	N	N	50	30
H43R0803	.05	.07	.07	.007	N	N	N	N	10	30
H43R0813	.10	.05	<.05	.015	10	N	N	N	70	70
H43R0823	.15	.07	.10	.020	10	N	N	N	70	30
H43R0833	.05	<.02	<.05	.005	N	N	N	N	N	N
H43R0843	.15	.02	<.05	.020	<10	N	N	N	50	<20
H43R0853	.10	.03	.05	.007	10	N	N	N	70	50
H43R0863	1.00	.50	.15	.150	20	<.5	N	N	100	150
H43R0873	.05	.02	<.05	.010	N	N	N	N	N	30
H43R0883	.10	.07	.05	.015	<10	N	N	N	15	50
H43R0893	.10	.05	.05	.010	10	N	N	N	20	50
H43R0903	.30	.10	.05	.050	<10	N	N	N	30	50
H43R0913	.15	.07	<.05	.030	<10	N	N	N	50	30
H43R0923	.20	.05	<.05	.015	<10	N	N	N	30	30
H43R0933	.15	.15	.15	.150	<10	N	N	N	50	N
H43R0943	.30	.10	.07	.005	10	N	N	N	20	50

TABLE 2.--- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE,
MISSOURI AND ARKANSAS.---Continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s
H43R0491	N	N	N	<5	15	10	N	5	N	15	10
H43R0501	N	N	N	<5	N	10	N	7	N	10	N
H43R0511	N	N	N	5	<10	15	N	10	<20	15	15
H43R0521	1.5	N	N	7	50	30	N	20	<20	50	15
H43R0531	1.0	N	N	7	20	20	N	10	N	20	20
H43R0541	N	N	N	N	N	<5	N	<5	N	<5	N
H43R0551	1.5	N	N	7	50	30	N	5	<20	30	30
H43R0561	N	N	N	N	N	5	N	N	N	5	N
H43R0581	<1.0	N	N	<5	15	20	N	10	<20	15	20
H43R0591	<1.0	N	N	<5	15	15	N	10	<20	10	15
H43R0601	N	N	N	5	10	50	N	15	<20	15	N
H43R0606	N	N	N	N	N	7	N	<5	N	<5	N
H43R0619	1.0	N	N	5	30	15	N	30	N	20	30
H43R0625	N	N	N	N	N	<5	N	N	N	<5	N
H43R0635	1.0	N	N	7	70	50	N	15	N	50	30
H43R0645	N	N	N	N	N	5	N	5	N	7	N
H43R0655	<1.0	N	N	5	N	10	N	20	N	15	20
H43R0665	<1.0	N	N	5	30	20	N	30	N	20	30
H43R0675	N	N	N	<5	10	20	N	5	N	10	20
H43R0685	1.0	N	N	5	30	30	N	15	N	30	50
H43R0695	1.5	N	N	7	70	30	N	15	N	30	7,000
H43R0705	1.5	N	N	10	70	30	N	15	N	50	200
H43R0715	1.0	N	N	5	30	20	N	15	N	20	100
H43R0725	1.5	N	N	10	70	100	N	20	<20	70	100
H43R0735	N	N	N	N	N	N	N	N	N	N	N
H43R0744	1.5	N	N	7	70	20	N	30	<20	50	70
H43R0763	<1.0	N	N	<5	15	10	N	<5	N	10	N
H43R0773	N	N	N	<5	N	<5	N	N	N	N	N
H43R0783	<1.0	N	N	5	15	15	N	<5	N	10	10
H43R0793	N	N	N	N	N	N	N	N	N	N	N
H43R0803	N	N	N	N	N	N	N	N	N	N	N
H43R0813	N	N	N	N	N	N	N	N	N	<5	N
H43R0823	N	N	N	N	N	N	N	N	N	<5	N
H43R0833	N	N	N	N	N	N	N	N	N	N	N
H43R0843	N	N	N	N	N	N	N	N	N	N	20
H43R0853	N	N	N	N	N	5	N	N	N	<5	70
H43R0863	<1.0	N	N	5	20	15	N	15	N	15	15
H43R0873	N	N	N	N	N	N	N	N	N	N	N
H43R0883	N	N	N	N	N	N	N	N	N	N	N
H43R0893	N	N	N	N	N	N	N	N	N	N	N
H43R0903	N	N	N	N	N	<5	N	N	N	<5	N
H43R0913	N	N	N	N	N	N	N	N	N	N	N
H43R0923	N	N	N	N	N	N	N	N	N	<5	N
H43R0933	<1.0	N	N	<5	N	N	N	N	N	<5	N
H43R0943	N	N	N	N	N	20	N	N	N	<5	N

TABLE 2.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE,
MISSOURI AND ARKANSAS.--Continued

Sample	Sb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Form
H43R0491	N	N	N	N	20	<50	N	N	50	N	39
H43R0501	N	N	N	N	<10	<50	N	N	100	N	39
H43R0511	N	N	N	N	10	<50	N	N	150	N	39
H43R0521	N	5	N	N	70	<50	N	<200	150	N	39
H43R0531	N	<5	N	N	30	<50	N	N	50	N	39
H43R0541	N	N	N	N	<10	<50	N	200	10	N	39
H43R0551	N	5	N	N	50	<50	N	<200	70	N	39
H43R0561	N	N	N	N	10	<50	N	N	20	N	39
H43R0581	N	<5	N	N	30	N	N	N	150	N	39
H43R0591	N	<5	N	N	30	<50	N	<200	50	N	39
H43R0601	N	N	N	N	20	<50	N	N	100	N	39
H43R0606	N	N	N	N	10	<50	N	N	20	N	39
H43R0619	N	<5	N	N	50	<50	N	N	100	N	39
H43R0625	N	N	N	150	10	<50	N	N	30	N	39
H43R0635	N	<5	N	N	70	<50	N	N	30	N	39
H43R0645	N	N	N	N	10	<50	N	N	20	N	39
H43R0655	N	N	N	N	20	<50	N	2,000	70	N	39
H43R0665	N	<5	N	N	50	<50	N	N	50	N	39
H43R0675	N	N	N	N	30	<50	N	N	70	N	39
H43R0685	N	<5	N	N	100	<50	N	N	70	N	39
H43R0695	N	5	N	N	70	<50	N	1,000	100	N	39
H43R0705	N	5	N	N	70	<50	N	N	70	N	39
H43R0715	N	<5	N	N	50	<50	N	<200	50	N	39
H43R0725	N	7	N	N	150	<50	N	N	100	N	39
H43R0735	N	N	N	N	<10	<50	N	N	10	N	39
H43R0744	N	5	N	N	100	<50	N	N	70	N	39
H43R0763	N	N	N	N	30	<50	N	N	70	N	39
H43R0773	N	N	N	N	<10	<50	N	N	<10	N	39
H43R0783	N	N	N	N	20	<50	N	<200	70	N	39
H43R0793	N	N	N	N	N	<50	N	N	<10	N	39
H43R0803	N	N	N	N	N	<50	N	N	70	N	39
H43R0813	N	N	N	100	<10	<50	N	N	10	N	19
H43R0823	N	N	N	N	<10	<50	N	N	20	N	19
H43R0833	N	N	N	N	N	<50	N	N	30	N	19
H43R0843	N	N	N	N	<10	<50	N	N	50	N	19
H43R0853	N	N	N	N	<10	<50	N	N	<10	N	19
H43R0863	N	N	N	N	70	<50	N	N	70	N	19
H43R0873	N	N	N	N	<10	<50	N	N	70	N	19
H43R0883	N	N	N	N	<10	<50	N	N	150	N	19
H43R0893	N	N	N	N	<10	<50	N	N	30	N	19
H43R0903	N	N	N	N	10	<50	N	N	50	N	19
H43R0913	N	N	N	N	10	<50	N	N	10	N	19
H43R0923	N	N	N	N	10	<50	N	N	10	N	19
H43R0933	N	N	N	N	30	<50	N	N	<10	N	19
H43R0943	N	N	N	N	50	<50	N	N	30	N	19

TABLE 2.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE,
MISSOURI AND ARKANSAS.--Continued

Sample	Fe-pct. %	Mg-pct. %	Ca-pct. %	Ti-pct. %	Mn-ppm g	Ag-ppm g	As-ppm g	Au-ppm g	B-ppm g	Ba-ppm g
H43R0953	1.00	.20	.05	.200	15	<.5	N	N	100	20
H43R0963	.20	.07	<.05	.300	10	N	N	N	20	30
H43R0973	.10	.02	<.05	.100	<10	N	N	N	20	20
H43R0983	.20	.10	.10	.500	<10	N	N	N	50	50
H43R0987	.50	.05	<.05	.150	<10	<.5	N	N	50	20

TABLE 2.--- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE,
MISSOURI AND ARKANSAS.--Continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s
H43R0953	1.0	N	N	5	30	10	N	<5	N	15	20
H43R0963	N	N	N	<5	N	N	N	<5	N	<5	N
H43R0973	N	N	N	N	N	N	N	N	N	N	N
H43R0983	N	N	N	N	N	10	N	5	N	5	N
H43R0987	N	N	N	N	N	7	N	<5	N	5	10

TABLE 2.-- SPECTROGRAPHIC ANALYSES OF INSOLUBLE - RESIDUE SAMPLES FROM DRILL HOLE H43, HARRISON 1 X 2 QUADRANGLE,
 MISSOURI AND ARKANSAS.--Continued

Sample	Sb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Form
H43R0953	N	N	N	N	70	<50	N	N	50	N	19
H43R0963	N	N	N	N	20	<50	N	N	70	N	19
H43R0973	N	N	N	N	10	<50	N	N	30	N	19
H43R0983	N	N	N	N	50	<50	N	N	30	N	19
H43R0987	N	N	N	N	50	<50	N	N	N	N	19