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Spectrographic analyses of insoluble-residue samples, within and adjacent to the Joplin 1° x 2° quadrangle, Missouri and Kansas: Drill hole nos. 122, 123, and 124.

By

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INTRODUCTION

Geochemical studies of the Joplin 1° x 2° quadrangle, Missouri and Kansas, 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 Kansas Geological Survey. 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 (MGLS) and the Kansas Geological Survey (KGS). None of the holes are company confidential and none intersect economically significant mineralized ground.

The analytical results for drill hole no. 122 (#27052 - MGLS), drill hole no. 123 (#23680 - MGLS), and drill hole no. 124 (#25107 - MGLS) are given in this report. Drill hole no. 122 is located in sec. 6, T. 31 N., R. 32 W. in Barton County, Missouri; drill hole no. 123 is located in sec. 2, T. 37 N., R. 30 W. in Vernon County, Missouri; drill hole no. 124 is located in sec. 27, T. 32 N., R. 30 W. in Barton County, Missouri (fig.1). Data for the insoluble-residue samples from drill holes 122, 123, and 124 are listed in tables 1, 2, and 3 respectively. Well name, well number, township, range, and county allow for identification and location of files at the Missouri Division of Geology. Drill hole J123 is located 1 km outside the quadrangle, but geochemical results from it are pertinent to the Joplin quadrangle.

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 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 with 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:

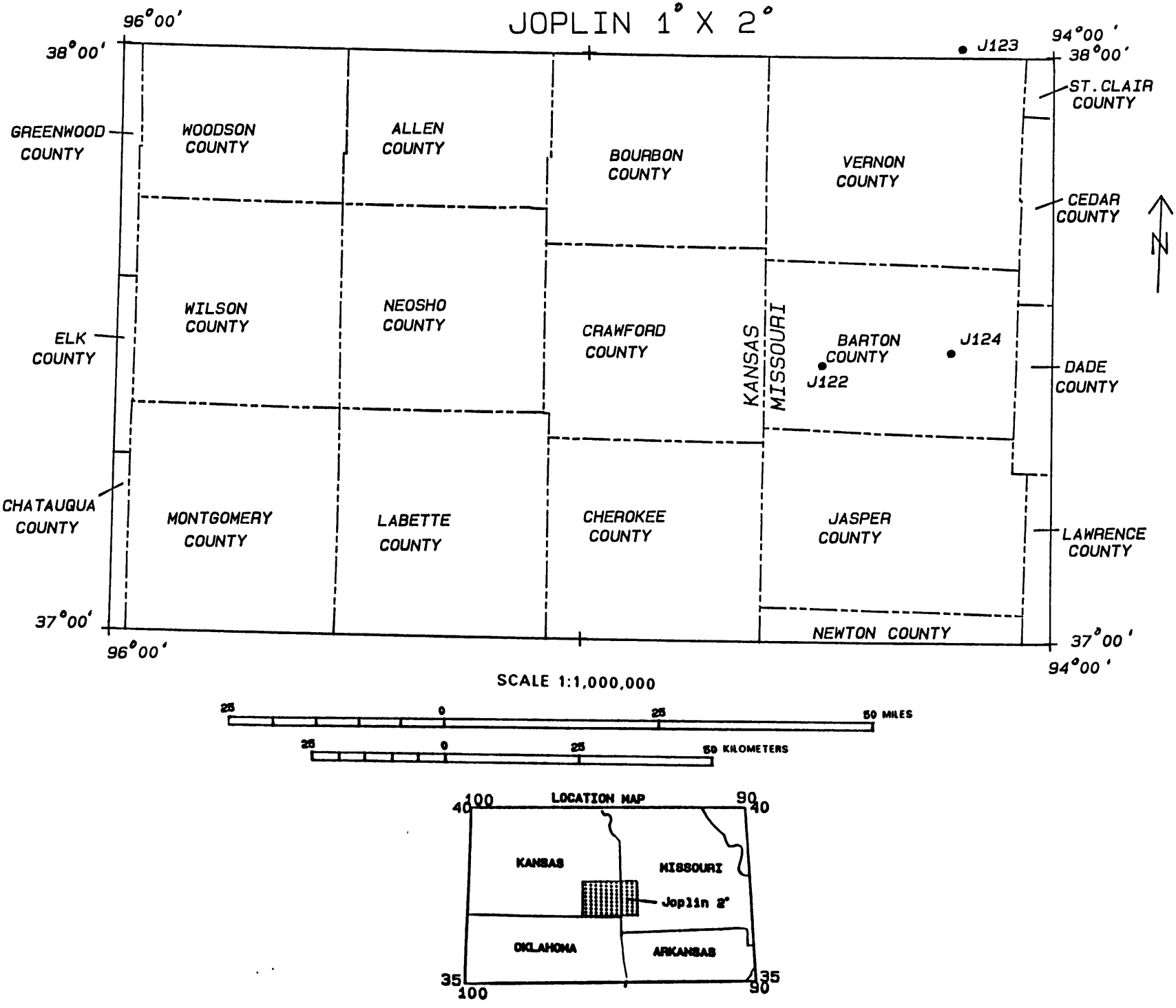

Figure 1. Locations of drill holes 122, 123, and 124, Joplin 1° x 2° quadrangle, Missouri and Kansas.

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 J, signifying Joplin. The next three digits signify the USGS drill-hole number. The last four digits identify the depth of the sample from the drill-hole collar. Most samples are composites of approximate 10-foot intervals, dependent upon the original sample intervals 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 of tables 1 through 3. The code and formation names are as follows:

Code	Formation
20	Pennsylvanian Undifferentiated
40	Mississippian Undifferentiated
65	Cotter Dolomite
66	Jefferson City Dolomite
67	Roubidoux Formation
68	Gasconade Dolomite
69	Gunter Sandstone Member
71	Davis Shale
81	Emminence
82	Potosi
83	Derby / Doerun
85	Lamotte Sandstone
90	Precambrian Undifferentiated

EXPLANATION OF DATA

The columns in tables 1 through 3 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 weight percent (%); all other elements are in parts per million. Other symbols shown on the tables are:

N = Not detected at the limit of determination;
< = 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) may 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. J. Hadley Williams, Director, and their staffs for making these drill-hole samples available from their sample library.

REFERENCES

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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. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.

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

Sample	Latitude	Longitude	Fe-pct.	Mg-pct.	Ca-pct.	Ti-pct.	Mn-ppm	Ag-ppm	As-ppm	Au-ppm
			s	s	s	s	s	s	s	s
J1220180	37 28 0	94 29 30	1.00	<.02	.10	.030	10	N	N	N
J1220195	37 28 0	94 29 30	1.50	.02	.30	.050	20	<.5	N	N
J1220210	37 28 0	94 29 30	1.00	<.02	.30	.020	15	N	N	N
J1220230	37 28 0	94 29 30	2.00	.05	.10	.100	50	N	N	N
J1220250	37 28 0	94 29 30	.70	<.02	.05	.050	30	N	N	N
J1220270	37 28 0	94 29 30	.20	<.02	.10	.015	<10	N	N	N
J1220290	37 28 0	94 29 30	.30	<.02	<.05	.010	10	N	N	N
J1220310	37 28 0	94 29 30	.10	<.02	.07	<.002	<10	N	N	N
J1220325	37 28 0	94 29 30	.10	<.02	.10	<.002	N	N	N	N
J1220345	37 28 0	94 29 30	.10	<.02	<.05	.002	N	N	N	N
J1220360	37 28 0	94 29 30	<.05	<.02	<.05	<.002	N	N	N	N
J1220380	37 28 0	94 29 30	.10	.02	<.05	.007	N	N	N	N
J1220400	37 28 0	94 29 30	.20	.02	.07	.007	N	N	N	N
J1220420	37 28 0	94 29 30	.15	.03	.05	.015	N	N	N	N
J1220440	37 28 0	94 29 30	.20	<.02	.15	.015	N	N	N	N
J1220460	37 28 0	94 29 30	.07	<.02	.20	.010	N	N	N	N
J1220480	37 28 0	94 29 30	2.00	.50	.20	.200	<10	N	N	N
J1220495	37 28 0	94 29 30	15.00	5.00	3.00	>1.000	70	N	N	N
J1220510	37 28 0	94 29 30	>20.00	7.00	10.00	>1.000	500	N	N	N
J1220520	37 28 0	94 29 30	20.00	2.00	.20	.500	30	N	N	N
J1220540	37 28 0	94 29 30	3.00	1.00	.05	.100	10	N	N	N
J1220555	37 28 0	94 29 30	5.00	3.00	2.00	.100	<10	N	N	N
J1220570	37 28 0	94 29 30	1.00	.02	<.05	.015	N	N	N	N
J1220590	37 28 0	94 29 30	2.00	.30	.30	.020	N	N	N	N
J1220610	37 28 0	94 29 30	1.50	.15	.10	.010	N	N	N	N
J1220630	37 28 0	94 29 30	1.00	.20	.10	.015	N	N	N	N
J1220650	37 28 0	94 29 30	1.00	.30	.15	.015	N	N	N	N
J1220670	37 28 0	94 29 30	.70	.10	.10	.010	N	N	N	N
J1220690	37 28 0	94 29 30	1.00	.10	.15	.010	N	N	N	N
J1220710	37 28 0	94 29 30	.70	.20	.10	.020	N	N	N	N
J1220730	37 28 0	94 29 30	.50	.50	.50	.020	<10	N	N	N
J1220745	37 28 0	94 29 30	5.00	.50	.50	.015	N	N	N	N
J1220760	37 28 0	94 29 30	1.00	.10	.10	.010	N	N	N	N
J1220780	37 28 0	94 29 30	.50	.02	<.05	N	N	N	N	N
J1220800	37 28 0	94 29 30	1.00	.10	.10	.005	10	N	N	N
J1220820	37 28 0	94 29 30	.30	.05	.05	.003	N	N	N	N
J1220840	37 28 0	94 29 30	.05	<.02	N	<.002	N	N	N	N
J1220850	37 28 0	94 29 30	.05	.02	<.05	.005	<10	N	N	N
J1220880	37 28 0	94 29 30	.20	<.02	N	<.002	N	N	N	N
J1220900	37 28 0	94 29 30	.05	<.02	N	N	N	N	N	N
J1220915	37 28 0	94 29 30	<.05	<.02	N	.002	N	N	N	N
J1220930	37 28 0	94 29 30	.07	<.02	<.05	.002	<10	N	N	N
J1220945	37 28 0	94 29 30	.15	<.02	<.05	.002	<10	N	N	N
J1220960	37 28 0	94 29 30	.10	<.02	<.05	<.002	<10	N	N	N
J1220980	37 28 0	94 29 30	.20	.03	.05	.002	<10	N	N	N

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	B-ppm s	Ba-ppm s	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
J1220180	50	<20	N	N	N	<5	N	<5	N	N	N	10
J1220195	70	20	N	N	N	5	<10	10	N	N	N	15
J1220210	50	20	N	N	N	<5	<10	7	N	N	N	10
J1220230	50	20	<1	N	N	5	200	15	N	5	N	20
J1220250	30	20	N	N	N	N	150	5	N	<5	N	7
J1220270	30	<20	N	N	N	N	N	N	N	N	N	<5
J1220290	20	N	N	N	N	N	30	N	N	<5	N	N
J1220310	20	N	N	N	N	N	N	N	N	N	N	N
J1220325	50	<20	N	N	N	N	<10	<5	N	N	N	N
J1220345	50	N	N	N	N	N	N	N	N	N	N	N
J1220360	70	N	N	N	N	N	N	<5	N	N	N	N
J1220380	70	<20	N	N	N	N	N	N	N	5	N	<5
J1220400	50	20	N	N	N	N	N	<5	N	<5	N	<5
J1220420	70	N	N	N	N	N	<10	N	N	N	N	N
J1220440	50	<20	N	N	N	N	20	N	N	<5	N	N
J1220460	50	<20	N	N	N	N	10	<5	N	N	N	N
J1220480	100	100	N	N	N	N	20	5	N	N	N	7
J1220495	200	500	N	N	N	10	150	30	30	N	<20	50
J1220510	500	700	N	N	N	20	200	150	50	N	<20	70
J1220520	100	100	N	N	N	20	70	100	N	N	N	150
J1220540	70	70	1	N	N	5	30	10	N	N	N	20
J1220555	50	50	<1	N	N	5	10	20	N	N	N	20
J1220570	30	<20	N	N	N	N	N	<5	N	N	N	<5
J1220590	50	20	N	N	N	N	<10	10	N	N	N	5
J1220610	30	20	N	N	N	N	N	<5	N	N	N	5
J1220630	50	20	N	N	N	N	N	<5	N	N	N	<5
J1220650	50	<20	N	N	N	N	N	<5	N	N	N	<5
J1220670	70	<20	N	N	N	N	N	<5	N	N	N	<5
J1220690	70	30	N	N	N	N	20	<5	N	N	N	<5
J1220710	20	20	N	N	N	N	N	<5	N	N	N	<5
J1220730	50	30	N	N	N	N	30	<5	N	N	N	<5
J1220745	50	50	N	N	N	<5	<10	7	N	N	N	10
J1220760	50	20	N	N	N	N	N	10	N	N	N	5
J1220780	30	N	N	N	N	N	N	N	N	N	N	N
J1220800	30	20	N	N	N	N	N	<5	N	N	N	<5
J1220820	20	20	N	N	N	N	N	<5	N	N	N	N
J1220840	10	20	N	N	N	N	N	N	N	N	N	N
J1220850	10	30	N	N	N	N	N	N	N	N	N	N
J1220880	15	N	N	N	N	N	N	N	N	N	N	N
J1220900	10	<20	N	N	N	N	N	N	N	N	N	N
J1220915	15	20	N	N	N	N	N	N	N	N	N	N
J1220930	15	<20	N	N	N	N	N	N	N	N	N	N
J1220945	15	<20	N	N	N	N	N	<5	N	N	N	N
J1220960	20	<20	N	N	N	N	N	<5	N	N	N	N
J1220980	30	<20	N	N	N	N	N	<5	N	N	N	N

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Pb-ppm s	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 #
J1220180	N	N	N	N	N	<10	N	N	N	100	N	40
J1220195	N	N	N	N	N	10	N	N	200	70	N	40
J1220210	N	N	N	N	N	<10	N	N	<200	<10	N	40
J1220230	N	N	N	N	N	20	N	N	N	70	N	40
J1220250	N	N	N	N	N	10	N	N	N	<10	N	40
J1220270	N	N	N	N	N	N	N	N	N	N	N	40
J1220290	N	N	N	N	N	N	N	N	N	N	N	40
J1220310	N	N	N	N	N	N	N	N	N	N	N	40
J1220325	N	N	N	N	N	N	N	N	N	N	N	40
J1220345	N	N	N	N	N	N	N	N	N	N	N	40
J1220360	N	N	N	N	N	N	N	N	N	N	N	40
J1220380	N	N	N	N	N	N	N	N	N	N	N	40
J1220400	N	N	N	N	N	N	N	N	N	N	N	40
J1220420	N	N	N	N	N	<10	N	N	N	N	N	40
J1220440	N	N	N	N	N	N	N	N	N	N	N	40
J1220460	N	N	N	N	N	<10	N	N	N	N	N	40
J1220480	N	N	N	N	N	15	N	N	N	150	N	40
J1220495	50	N	10	N	N	300	N	30	N	500	N	40
J1220510	20	N	20	N	N	500	N	50	N	500	N	40
J1220520	10	N	5	N	N	200	N	<10	N	150	N	40
J1220540	N	N	N	N	N	70	N	N	N	<10	N	65
J1220555	20	N	N	N	N	50	N	N	N	10	N	65
J1220570	N	N	N	N	N	N	N	N	N	N	N	66
J1220590	N	N	N	N	N	N	N	N	N	N	N	66
J1220610	N	N	N	N	N	N	N	N	N	15	N	66
J1220630	N	N	N	N	N	N	N	N	N	N	N	66
J1220650	N	N	N	N	N	<10	N	N	N	N	N	66
J1220670	N	N	N	N	N	N	N	N	N	N	N	66
J1220690	N	N	N	N	N	N	N	N	N	N	N	66
J1220710	N	N	N	N	N	N	N	N	N	N	N	66
J1220730	N	N	N	N	N	<10	N	N	N	N	N	66
J1220745	N	N	N	N	N	N	N	N	N	N	N	66
J1220760	N	N	N	N	N	N	N	N	N	N	N	66
J1220780	N	N	N	N	N	N	N	N	N	N	N	67
J1220800	N	N	N	N	N	<10	N	N	N	N	N	67
J1220820	N	N	N	N	N	N	N	N	N	N	N	67
J1220840	N	N	N	N	N	N	N	N	N	N	N	67
J1220850	N	N	N	N	N	N	N	N	N	10	N	67
J1220880	N	N	N	N	N	N	N	N	N	N	N	67
J1220900	N	N	N	N	N	N	N	N	N	N	N	67
J1220915	N	N	N	N	N	N	N	N	N	<10	N	67
J1220930	N	N	N	N	N	N	N	N	N	10	N	68
J1220945	N	N	N	N	N	N	N	N	N	<10	N	68
J1220960	N	N	N	N	N	N	N	N	N	<10	N	68
J1220980	N	N	N	N	N	N	N	N	N	N	N	68

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s
J1220995	37 28 0	94 29 30	.15	.05	.05	<.002	<10	N	N	N
J1221030	37 28 0	94 29 30	<.05	<.02	N	N	N	N	N	N
J1221050	37 28 0	94 29 30	.05	.02	.05	.007	<10	N	N	N

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	B-ppm s	Ba-ppm s	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
J1220995	50	<20	N	N	N	N	50	<5	N	N	N	N
J1221030	<10	N	N	N	N	N	N	N	N	N	N	N
J1221050	30	20	N	N	N	N	N	N	N	N	N	N

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Pb-ppm s	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 #
J1220995	N	N	N	N	N	N	N	N	N	N	N	68
J1221030	N	N	N	N	N	N	N	N	N	N	N	68
J1221050	N	N	N	N	N	N	N	N	N	N	N	68

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.

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

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s
J1220180	37 28 0	94 29 30	1.00	<.02	.10	.030	10	N	N	N
J1220195	37 28 0	94 29 30	1.50	.02	.30	.050	20	<.5	N	N
J1220210	37 28 0	94 29 30	1.00	<.02	.30	.020	15	N	N	N
J1220230	37 28 0	94 29 30	2.00	.05	.10	.100	50	N	N	N
J1220250	37 28 0	94 29 30	.70	<.02	.05	.050	30	N	N	N
J1220270	37 28 0	94 29 30	.20	<.02	.10	.015	<10	N	N	N
J1220290	37 28 0	94 29 30	.30	<.02	<.05	.010	10	N	N	N
J1220310	37 28 0	94 29 30	.10	<.02	.07	<.002	<10	N	N	N
J1220325	37 28 0	94 29 30	.10	<.02	.10	<.002	N	N	N	N
J1220345	37 28 0	94 29 30	.10	<.02	<.05	.002	N	N	N	N
J1220360	37 28 0	94 29 30	<.05	<.02	<.05	<.002	N	N	N	N
J1220380	37 28 0	94 29 30	.10	.02	<.05	.007	N	N	N	N
J1220400	37 28 0	94 29 30	.20	.02	.07	.007	N	N	N	N
J1220420	37 28 0	94 29 30	.15	.03	.05	.015	N	N	N	N
J1220440	37 28 0	94 29 30	.20	<.02	.15	.015	N	N	N	N
J1220460	37 28 0	94 29 30	.07	<.02	.20	.010	N	N	N	N
J1220480	37 28 0	94 29 30	2.00	.50	.20	.200	<10	N	N	N
J1220495	37 28 0	94 29 30	15.00	5.00	3.00	>1.000	70	N	N	N
J1220510	37 28 0	94 29 30	>20.00	7.00	10.00	>1.000	500	N	N	N
J1220520	37 28 0	94 29 30	20.00	2.00	.20	.500	30	N	N	N
J1220540	37 28 0	94 29 30	3.00	1.00	.05	.100	10	N	N	N
J1220555	37 28 0	94 29 30	5.00	3.00	2.00	.100	<10	N	N	N
J1220570	37 28 0	94 29 30	1.00	.02	<.05	.015	N	N	N	N
J1220590	37 28 0	94 29 30	2.00	.30	.30	.020	N	N	N	N
J1220610	37 28 0	94 29 30	1.50	.15	.10	.010	N	N	N	N
J1220630	37 28 0	94 29 30	1.00	.20	.10	.015	N	N	N	N
J1220650	37 28 0	94 29 30	1.00	.30	.15	.015	N	N	N	N
J1220670	37 28 0	94 29 30	.70	.10	.10	.010	N	N	N	N
J1220690	37 28 0	94 29 30	1.00	.10	.15	.010	N	N	N	N
J1220710	37 28 0	94 29 30	.70	.20	.10	.020	N	N	N	N
J1220730	37 28 0	94 29 30	.50	.50	.50	.020	<10	N	N	N
J1220745	37 28 0	94 29 30	5.00	.50	.50	.015	N	N	N	N
J1220760	37 28 0	94 29 30	1.00	.10	.10	.010	N	N	N	N
J1220780	37 28 0	94 29 30	.50	.02	<.05	N	N	N	N	N
J1220800	37 28 0	94 29 30	1.00	.10	.10	.005	10	N	N	N
J1220820	37 28 0	94 29 30	.30	.05	.05	.003	N	N	N	N
J1220840	37 28 0	94 29 30	.05	<.02	N	<.002	N	N	N	N
J1220850	37 28 0	94 29 30	.05	.02	<.05	.005	<10	N	N	N
J1220880	37 28 0	94 29 30	.20	<.02	N	<.002	N	N	N	N
J1220900	37 28 0	94 29 30	.05	<.02	N	N	N	N	N	N
J1220915	37 28 0	94 29 30	<.05	<.02	N	.002	N	N	N	N
J1220930	37 28 0	94 29 30	.07	<.02	<.05	.002	<10	N	N	N
J1220945	37 28 0	94 29 30	.15	<.02	<.05	.002	<10	N	N	N
J1220960	37 28 0	94 29 30	.10	<.02	<.05	<.002	<10	N	N	N
J1220980	37 28 0	94 29 30	.20	.03	.05	.002	<10	N	N	N

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	B-ppm s	Ba-ppm s	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
J1220180	50	<20	N	N	N	<5	N	<5	N	N	N	10
J1220195	70	20	N	N	N	5	<10	10	N	N	N	15
J1220210	50	20	N	N	N	<5	<10	7	N	N	N	10
J1220230	50	20	<1	N	N	5	200	15	N	5	N	20
J1220250	30	20	N	N	N	N	150	5	N	<5	N	7
J1220270	30	<20	N	N	N	N	N	N	N	N	N	<5
J1220290	20	N	N	N	N	N	30	N	N	<5	N	N
J1220310	20	N	N	N	N	N	N	N	N	N	N	N
J1220325	50	<20	N	N	N	N	<10	<5	N	N	N	N
J1220345	50	N	N	N	N	N	N	N	N	N	N	N
J1220360	70	N	N	N	N	N	N	<5	N	N	N	N
J1220380	70	<20	N	N	N	N	N	N	N	5	N	<5
J1220400	50	20	N	N	N	N	N	<5	N	<5	N	<5
J1220420	70	N	N	N	N	N	<10	N	N	N	N	N
J1220440	50	<20	N	N	N	N	20	N	N	<5	N	N
J1220460	50	<20	N	N	N	N	10	<5	N	N	N	N
J1220480	100	100	N	N	N	N	20	5	N	N	N	7
J1220495	200	500	N	N	N	10	150	30	30	N	<20	50
J1220510	500	700	N	N	N	20	200	150	50	N	<20	70
J1220520	100	100	N	N	N	20	70	100	N	N	N	150
J1220540	70	70	1	N	N	5	30	10	N	N	N	20
J1220555	50	50	<1	N	N	5	10	20	N	N	N	20
J1220570	30	<20	N	N	N	N	N	<5	N	N	N	<5
J1220590	50	20	N	N	N	N	<10	10	N	N	N	5
J1220610	30	20	N	N	N	N	N	<5	N	N	N	5
J1220630	50	20	N	N	N	N	N	<5	N	N	N	<5
J1220650	50	<20	N	N	N	N	N	<5	N	N	N	<5
J1220670	70	<20	N	N	N	N	N	<5	N	N	N	<5
J1220690	70	30	N	N	N	N	20	<5	N	N	N	<5
J1220710	20	20	N	N	N	N	N	<5	N	N	N	<5
J1220730	50	30	N	N	N	N	30	<5	N	N	N	<5
J1220745	50	50	N	N	N	<5	<10	7	N	N	N	10
J1220760	50	20	N	N	N	N	N	10	N	N	N	5
J1220780	30	N	N	N	N	N	N	N	N	N	N	N
J1220800	30	20	N	N	N	N	N	<5	N	N	N	<5
J1220820	20	20	N	N	N	N	N	<5	N	N	N	N
J1220840	10	20	N	N	N	N	N	N	N	N	N	N
J1220850	10	30	N	N	N	N	N	N	N	N	N	N
J1220880	15	N	N	N	N	N	N	N	N	N	N	N
J1220900	10	<20	N	N	N	N	N	N	N	N	N	N
J1220915	15	20	N	N	N	N	N	N	N	N	N	N
J1220930	15	<20	N	N	N	N	N	N	N	N	N	N
J1220945	15	<20	N	N	N	N	N	<5	N	N	N	N
J1220960	20	<20	N	N	N	N	N	<5	N	N	N	N
J1220980	30	<20	N	N	N	N	N	<5	N	N	N	N

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Pb-ppm s	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 #
J1220180	N	N	N	N	N	<10	N	N	N	100	N	40
J1220195	N	N	N	N	N	10	N	N	200	70	N	40
J1220210	N	N	N	N	N	<10	N	N	<200	<10	N	40
J1220230	N	N	N	N	N	20	N	N	N	70	N	40
J1220250	N	N	N	N	N	10	N	N	N	<10	N	40
J1220270	N	N	N	N	N	N	N	N	N	N	N	40
J1220290	N	N	N	N	N	N	N	N	N	N	N	40
J1220310	N	N	N	N	N	N	N	N	N	N	N	40
J1220325	N	N	N	N	N	N	N	N	N	N	N	40
J1220345	N	N	N	N	N	N	N	N	N	N	N	40
J1220360	N	N	N	N	N	N	N	N	N	N	N	40
J1220380	N	N	N	N	N	N	N	N	N	N	N	40
J1220400	N	N	N	N	N	N	N	N	N	N	N	40
J1220420	N	N	N	N	N	<10	N	N	N	N	N	40
J1220440	N	N	N	N	N	N	N	N	N	N	N	40
J1220460	N	N	N	N	N	<10	N	N	N	N	N	40
J1220480	N	N	N	N	N	15	N	N	N	150	N	40
J1220495	50	N	10	N	N	300	N	30	N	500	N	40
J1220510	20	N	20	N	N	500	N	50	N	500	N	40
J1220520	10	N	5	N	N	200	N	<10	N	150	N	40
J1220540	N	N	N	N	N	70	N	N	N	<10	N	65
J1220555	20	N	N	N	N	50	N	N	N	10	N	65
J1220570	N	N	N	N	N	N	N	N	N	N	N	66
J1220590	N	N	N	N	N	N	N	N	N	N	N	66
J1220610	N	N	N	N	N	N	N	N	N	15	N	66
J1220630	N	N	N	N	N	N	N	N	N	N	N	66
J1220650	N	N	N	N	N	<10	N	N	N	N	N	66
J1220670	N	N	N	N	N	N	N	N	N	N	N	66
J1220690	N	N	N	N	N	N	N	N	N	N	N	66
J1220710	N	N	N	N	N	N	N	N	N	N	N	66
J1220730	N	N	N	N	N	<10	N	N	N	N	N	66
J1220745	N	N	N	N	N	N	N	N	N	N	N	66
J1220760	N	N	N	N	N	N	N	N	N	N	N	66
J1220780	N	N	N	N	N	N	N	N	N	N	N	67
J1220800	N	N	N	N	N	<10	N	N	N	N	N	67
J1220820	N	N	N	N	N	N	N	N	N	N	N	67
J1220840	N	N	N	N	N	N	N	N	N	N	N	67
J1220850	N	N	N	N	N	N	N	N	N	10	N	67
J1220880	N	N	N	N	N	N	N	N	N	N	N	67
J1220900	N	N	N	N	N	N	N	N	N	N	N	67
J1220915	N	N	N	N	N	N	N	N	N	<10	N	67
J1220930	N	N	N	N	N	N	N	N	N	10	N	68
J1220945	N	N	N	N	N	N	N	N	N	<10	N	68
J1220960	N	N	N	N	N	N	N	N	N	<10	N	68
J1220980	N	N	N	N	N	N	N	N	N	N	N	68

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s
J1220995	37 28 0	94 29 30	.15	.05	.05	<.002	<10	N	N	N
J1221030	37 28 0	94 29 30	<.05	<.02	N	N	N	N	N	N
J1221050	37 28 0	94 29 30	.05	.02	.05	.007	<10	N	N	N

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	B-ppm s	Ba-ppm s	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
J1220995	50	<20	N	N	N	N	50	<5	N	N	N	N
J1221030	<10	N	N	N	N	N	N	N	N	N	N	N
J1221050	30	20	N	N	N	N	N	N	N	N	N	N

TABLE 1--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 122, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Pb-ppm s	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 #
J1220995	N	N	N	N	N	N	N	N	N	N	N	68
J1221030	N	N	N	N	N	N	N	N	N	N	N	68
J1221050	N	N	N	N	N	N	N	N	N	N	N	68

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.

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

Sample	Latitude	Longitude	Fe-pct.	Mg-pct.	Ca-pct.	Ti-pct.	Mn-ppm	Ag-ppm	As-ppm	Au-ppm
			s	s	s	s	s	s	s	s
J1230180	37 56 35	94 16 27	15.00	.10	.20	.150	200	.5	N	N
J1230200	37 56 35	94 16 27	3.00	.20	.15	.200	70	N	N	N
J1230220	37 56 35	94 16 27	5.00	.50	.15	.300	200	N	N	N
J1230240	37 56 35	94 16 27	1.50	.20	.30	.200	200	N	N	N
J1230260	37 56 35	94 16 27	.30	.03	.10	.050	20	N	N	N
J1230280	37 56 35	94 16 27	.70	.02	.07	.010	20	N	N	N
J1230300	37 56 35	94 16 27	.50	.05	.10	.007	20	N	N	N
J1230320	37 56 35	94 16 27	1.50	.03	.05	.010	70	<.5	N	N
J1230340	37 56 35	94 16 27	5.00	.07	.05	.070	500	1.5	N	N
J1230360	37 56 35	94 16 27	3.00	.20	.10	.150	150	<.5	N	N
J1230380	37 56 35	94 16 27	10.00	.30	.07	.200	300	2.0	N	N
J1230390	37 56 35	94 16 27	10.00	.15	.20	.050	300	1.5	N	N
J1230400	37 56 35	94 16 27	10.00	.05	.05	.050	200	2.0	N	N
J1230420	37 56 35	94 16 27	5.00	.20	.15	.150	100	1.0	N	N
J1230440	37 56 35	94 16 27	1.50	.05	.05	.070	100	N	N	N
J1230460	37 56 35	94 16 27	3.00	.07	.10	.030	50	N	N	N
J1230480	37 56 35	94 16 27	5.00	.05	.10	.070	70	<.5	N	N
J1230490	37 56 35	94 16 27	7.00	.07	.15	.050	200	1.0	N	N
J1230510	37 56 35	94 16 27	3.00	.70	.70	.100	100	N	N	N
J1230530	37 56 35	94 16 27	5.00	.10	.10	.010	50	.5	N	N
J1230540	37 56 35	94 16 27	1.50	.20	.20	.150	200	N	N	N
J1230560	37 56 35	94 16 27	1.00	.10	.15	.010	20	<.5	N	N
J1230580	37 56 35	94 16 27	3.00	.10	.15	.050	100	<.5	N	N
J1230600	37 56 35	94 16 27	2.00	.20	.20	.070	70	N	N	N
J1230620	37 56 35	94 16 27	1.50	.30	.50	.070	30	N	N	N
J1230640	37 56 35	94 16 27	1.00	.10	.15	.030	30	N	N	N
J1230660	37 56 35	94 16 27	1.00	.10	.15	.050	50	N	N	N
J1230680	37 56 35	94 16 27	2.00	.07	.10	.050	70	<.5	N	N
J1230700	37 56 35	94 16 27	1.00	.15	.20	.010	20	N	N	N
J1230720	37 56 35	94 16 27	.20	.07	.15	.020	<10	N	N	N
J1230740	37 56 35	94 16 27	.50	.10	.10	.050	<10	N	N	N
J1230760	37 56 35	94 16 27	.20	.20	.30	.020	10	N	N	N
J1230780	37 56 35	94 16 27	.70	.20	.20	.030	20	N	N	N
J1230800	37 56 35	94 16 27	1.50	.05	.05	.100	20	N	N	N
J1230820	37 56 35	94 16 27	1.50	.20	.20	.150	30	N	N	N
J1230840	37 56 35	94 16 27	.30	<.02	<.05	.010	10	N	N	N
J1230860	37 56 35	94 16 27	.50	.02	<.05	.050	15	N	N	N
J1230880	37 56 35	94 16 27	5.00	.20	.15	.150	200	N	N	N
J1230895	37 56 35	94 16 27	1.50	.20	.10	.150	50	N	N	N
J1230920	37 56 35	94 16 27	.30	.03	<.05	.030	20	N	N	N
J1230940	37 56 35	94 16 27	.50	.03	<.05	.007	10	N	N	N
J1230950	37 56 35	94 16 27	.50	.02	<.05	.007	15	N	N	N
J1230970	37 56 35	94 16 27	.70	.05	<.05	.020	20	N	N	N
J1230980	37 56 35	94 16 27	1.00	.20	.05	.150	70	N	N	N
J1231000	37 56 35	94 16 27	.50	.10	.10	.030	20	N	N	N

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	B-ppm s	Ba-ppm s	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
J1230180	100	100	<1.0	N	N	70	150	100	20	5	N	200
J1230200	150	150	1.0	N	N	15	100	50	50	<5	N	70
J1230220	200	200	2.0	N	N	20	100	30	70	<5	N	100
J1230240	100	150	<1.0	N	N	10	70	10	50	<5	N	30
J1230260	70	300	N	N	N	N	15	<5	N	N	N	N
J1230280	50	50	N	N	N	N	50	70	N	N	N	15
J1230300	50	20	N	N	N	N	20	<5	N	N	N	<5
J1230320	30	50	N	N	N	N	30	10	N	N	N	20
J1230340	50	70	<1.0	N	N	10	50	50	<20	N	N	70
J1230360	100	100	<1.0	N	N	10	500	200	<20	20	N	50
J1230380	150	150	<1.0	N	N	15	500	150	20	20	N	150
J1230390	100	50	N	N	N	20	150	70	20	5	N	100
J1230400	50	50	N	N	N	30	20	100	<20	N	N	200
J1230420	70	150	N	N	N	5	50	50	20	<5	N	70
J1230440	30	100	N	N	N	N	30	15	N	<5	N	15
J1230460	50	70	N	N	N	7	500	20	<20	20	N	50
J1230480	50	70	N	N	N	7	700	50	N	30	N	50
J1230490	50	50	N	N	N	15	500	70	N	20	N	70
J1230510	70	70	N	N	N	10	500	30	N	10	N	50
J1230530	50	70	N	N	N	7	100	50	N	7	N	70
J1230540	70	200	N	N	N	N	500	20	N	N	N	20
J1230560	50	100	N	N	N	N	20	15	N	<5	N	10
J1230580	100	70	N	N	N	10	200	50	N	20	N	50
J1230600	70	100	N	N	N	5	500	30	N	30	N	50
J1230620	70	100	N	N	N	N	70	20	N	10	N	30
J1230640	100	70	N	N	N	N	70	10	N	5	N	20
J1230660	70	100	N	N	N	N	200	15	N	15	N	70
J1230680	70	100	N	N	N	N	150	30	20	20	N	50
J1230700	70	100	N	N	N	N	50	15	N	5	N	10
J1230720	50	70	N	N	N	N	10	<5	N	N	N	N
J1230740	50	100	N	N	N	N	50	20	N	<5	N	5
J1230760	70	100	N	N	N	N	70	7	N	<5	N	N
J1230780	70	100	N	N	N	N	150	7	N	10	N	<5
J1230800	30	70	N	N	N	N	70	7	N	5	N	10
J1230820	70	150	N	N	N	N	500	15	N	30	N	10
J1230840	10	50	N	N	N	N	50	5	N	10	N	<5
J1230860	<10	70	N	N	N	N	50	5	N	5	N	5
J1230880	70	70	<1.0	N	N	<5	100	30	20	50	N	30
J1230895	30	100	N	N	N	N	100	10	N	7	N	15
J1230920	<10	20	N	N	N	N	50	N	N	<5	N	<5
J1230940	N	30	N	N	N	N	70	<5	N	5	N	<5
J1230950	<10	20	N	N	N	N	30	7	N	5	N	5
J1230970	10	30	N	N	N	N	10	70	N	N	N	5
J1230980	100	70	<1.0	N	N	N	20	20	N	N	N	5
J1231000	20	50	N	N	N	N	10	15	N	N	N	<5

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Pb-ppm s	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 #
J1230180	20	N	5	N	N	20	N	20	500	50	N	40
J1230200	10	N	7	N	<100	70	N	50	N	150	N	40
J1230220	30	N	10	N	100	100	N	50	<200	200	N	40
J1230240	N	N	5	N	100	70	100	20	N	100	N	40
J1230260	10	N	N	N	N	10	50	N	N	15	N	40
J1230280	N	N	N	N	N	<10	<50	N	N	10	N	40
J1230300	N	N	N	N	N	N	N	N	N	<10	N	40
J1230320	N	N	N	N	N	<10	N	N	N	15	N	40
J1230340	<10	N	<5	N	N	15	N	N	N	50	N	40
J1230360	15	N	5	N	N	20	N	<10	1,000	100	N	40
J1230380	30	N	7	N	N	30	N	10	N	200	N	40
J1230390	N	N	<5	N	N	15	N	N	700	15	N	40
J1230400	20	N	N	N	N	10	N	N	1,500	20	N	40
J1230420	15	N	<5	N	N	15	N	10	200	150	N	40
J1230440	N	N	N	N	N	15	N	N	N	20	N	40
J1230460	<10	N	N	N	N	15	N	N	N	15	N	40
J1230480	<10	N	N	N	N	20	N	N	N	15	N	40
J1230490	10	N	N	N	N	20	N	N	200	10	N	40
J1230510	N	N	N	N	N	15	N	N	N	10	N	65
J1230530	N	N	N	N	N	<10	N	N	<200	15	N	65
J1230540	N	N	N	N	N	15	N	N	N	100	N	65
J1230560	N	N	N	N	N	<10	N	N	N	10	N	66
J1230580	10	N	N	N	N	10	N	N	<200	50	N	66
J1230600	<10	N	N	N	N	15	N	N	700	20	N	66
J1230620	N	N	N	N	N	15	N	N	N	15	N	66
J1230640	N	N	N	N	N	<10	N	N	N	10	N	66
J1230660	N	N	N	N	N	10	N	N	N	15	N	66
J1230680	10	N	N	N	N	15	N	N	700	15	N	66
J1230700	N	N	N	N	N	<10	N	N	N	20	N	66
J1230720	N	N	N	N	N	<10	N	N	N	<10	N	66
J1230740	N	N	N	N	N	10	N	N	N	10	N	66
J1230760	N	N	N	N	N	<10	N	N	N	<10	N	66
J1230780	N	N	N	N	N	<10	N	N	<200	<10	N	66
J1230800	N	N	N	N	N	15	N	N	200	30	N	66
J1230820	N	N	N	N	700	20	N	N	N	30	N	67
J1230840	N	N	N	N	N	<10	N	N	N	20	N	67
J1230860	N	N	N	N	N	<10	N	N	N	30	N	67
J1230880	<10	N	<5	N	N	30	N	<10	N	50	N	67
J1230895	N	N	N	N	N	30	N	<10	N	100	N	67
J1230920	N	N	N	N	N	<10	150	N	N	50	N	67
J1230940	N	N	N	N	N	<10	N	N	N	20	N	67
J1230950	N	N	N	N	N	<10	N	N	N	10	N	67
J1230970	N	N	N	N	N	10	N	N	N	20	N	68
J1230980	15	N	N	N	N	70	N	N	N	50	N	68
J1231000	N	N	N	N	N	10	N	N	N	20	N	68

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s
J1231010	37 56 35	94 16 27	2.00	.50	.15	.200	100	N	N	N
J1231020	37 56 35	94 16 27	1.00	.10	<.05	.030	10	N	N	N
J1231030	37 56 35	94 16 27	.20	.05	.07	.007	<10	N	N	N
J1231050	37 56 35	94 16 27	.50	.10	.10	.050	10	N	N	N
J1231070	37 56 35	94 16 27	.50	.07	<.05	.050	30	N	N	N
J1231090	37 56 35	94 16 27	.20	.10	.10	.010	20	N	N	N
J1231110	37 56 35	94 16 27	.10	.05	.05	.007	<10	N	N	N
J1231130	37 56 35	94 16 27	.30	.03	<.05	.007	20	N	N	N
J1231150	37 56 35	94 16 27	1.00	.10	.10	.020	100	N	N	N
J1231170	37 56 35	94 16 27	1.50	.10	.05	.100	100	N	N	N
J1231190	37 56 35	94 16 27	1.50	.07	.05	.020	70	<.5	N	N
J1231210	37 56 35	94 16 27	1.50	.07	.15	.050	50	<.5	N	N
J1231220	37 56 35	94 16 27	.20	.05	.10	.007	10	N	N	N
J1231230	37 56 35	94 16 27	.50	.02	<.05	.003	50	N	N	N
J1231250	37 56 35	94 16 27	1.00	.07	.05	.070	500	N	N	N
J1231270	37 56 35	94 16 27	1.50	.10	.10	.100	100	<.5	N	N
J1231290	37 56 35	94 16 27	3.00	.30	.30	.100	150	<.5	N	N
J1231310	37 56 35	94 16 27	7.00	.20	.05	.200	500	<.5	N	N
J1231330	37 56 35	94 16 27	10.00	.70	.20	.300	700	.5	N	N
J1231350	37 56 35	94 16 27	10.00	.50	.10	.300	500	.7	N	N
J1231370	37 56 35	94 16 27	15.00	.20	.05	.200	200	1.0	N	N
J1231390	37 56 35	94 16 27	10.00	.20	.05	.150	300	1.5	<200	N
J1231400	37 56 35	94 16 27	20.00	.07	.10	.050	150	1.5	300	N
J1231420	37 56 35	94 16 27	10.00	.10	.07	.150	100	.7	700	N
J1231440	37 56 35	94 16 27	20.00	.07	<.05	.200	200	1.5	200	N
J1231460	37 56 35	94 16 27	15.00	.07	.05	.150	150	1.0	300	N
J1231475	37 56 35	94 16 27	7.00	.10	<.05	.200	200	.5	<200	N
J1231490	37 56 35	94 16 27	15.00	.20	<.05	.200	100	1.0	N	N
J1231510	37 56 35	94 16 27	10.00	5.00	10.00	.100	150	1.5	N	N
J1231530	37 56 35	94 16 27	15.00	.70	.10	.200	70	1.5	N	N
J1231550	37 56 35	94 16 27	10.00	1.00	.15	.300	150	.5	N	N
J1231567	37 56 35	94 16 27	10.00	.70	.20	.200	50	.5	N	N
J1231580	37 56 35	94 16 27	10.00	2.00	1.00	.500	150	<.5	N	N
J1231600	37 56 35	94 16 27	10.00	1.50	.70	.700	100	N	N	N
J1231620	37 56 35	94 16 27	10.00	.70	.50	.300	70	N	N	N
J1231625	37 56 35	94 16 27	7.00	.50	.15	.200	50	N	N	N
J1231635	37 56 35	94 16 27	5.00	.70	.50	.200	100	<.5	N	N
J1231645	37 56 35	94 16 27	15.00	.70	.20	.200	150	.5	N	N
J1231655	37 56 35	94 16 27	10.00	.50	<.05	.150	50	<.5	N	N
J1231682	37 56 35	94 16 27	.10	<.02	N	.007	N	N	N	N
J1231702	37 56 35	94 16 27	.05	<.02	N	.015	N	N	N	N
J1231740	37 56 35	94 16 27	.05	<.02	N	.015	N	N	N	N
J1231760	37 56 35	94 16 27	.07	<.02	N	.010	N	N	N	N
J1231780	37 56 35	94 16 27	.50	.15	N	.100	15	N	N	N
J1231820	37 56 35	94 16 27	.20	.07	N	.050	<10	N	N	N

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	B-ppm s	Ba-ppm s	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
J1231010	100	150	<1.0	N	N	5	100	30	20	30	N	50
J1231020	50	20	N	N	N	N	20	7	N	5	N	10
J1231030	30	30	N	N	N	N	N	N	N	N	N	N
J1231050	50	20	N	N	N	N	10	7	N	<5	N	<5
J1231070	50	50	N	N	N	N	100	5	N	<5	N	<5
J1231090	70	50	N	N	N	N	N	<5	N	N	N	N
J1231110	50	20	N	N	N	N	N	N	N	N	N	N
J1231130	30	50	N	N	N	N	N	<5	N	N	N	<5
J1231150	50	70	N	N	N	N	<10	10	N	<5	<20	5
J1231170	70	70	N	N	N	<5	150	20	N	30	<20	10
J1231190	30	70	N	N	N	<5	150	70	N	10	N	15
J1231210	100	70	N	N	N	N	100	20	N	15	N	10
J1231220	50	50	N	N	N	N	N	100	N	N	N	N
J1231230	50	<20	N	N	N	N	N	5	N	N	N	<5
J1231250	20	70	N	N	N	N	15	7	N	N	N	5
J1231270	30	100	N	N	N	<5	50	15	N	<5	<20	10
J1231290	70	100	N	N	N	30	30	70	20	5	N	50
J1231310	100	200	1.0	N	N	30	70	200	<20	<5	<20	100
J1231330	150	300	1.5	N	N	30	100	100	50	N	<20	70
J1231350	100	200	1.5	N	N	30	70	200	50	<5	<20	70
J1231370	100	200	1.0	N	N	70	70	200	30	<5	N	300
J1231390	100	150	<1.0	N	N	100	100	500	20	20	<20	500
J1231400	100	300	N	N	N	150	20	700	<20	<5	N	700
J1231420	50	150	N	N	N	50	20	150	<20	5	N	300
J1231440	70	100	<1.0	N	N	100	50	1,500	<20	5	<20	700
J1231460	70	70	<1.0	N	N	70	70	700	<20	5	N	500
J1231475	50	100	<1.0	N	N	50	70	5,000	N	20	<20	150
J1231490	70	150	<1.0	N	N	70	30	700	<20	<5	N	300
J1231510	100	150	<1.0	N	N	50	20	500	N	5	<20	200
J1231530	100	300	1.0	N	N	30	30	300	20	15	N	150
J1231550	100	500	1.0	N	N	15	30	200	50	10	N	50
J1231567	150	200	1.0	N	N	50	20	150	<20	10	N	100
J1231580	200	500	1.0	N	N	5	50	100	70	5	N	50
J1231600	300	500	2.0	N	N	20	50	200	100	20	<20	50
J1231620	150	500	1.0	N	N	10	70	100	30	10	N	50
J1231625	100	300	<1.0	N	N	5	70	70	<20	10	N	30
J1231635	150	500	<1.0	N	N	<5	70	70	20	<5	N	20
J1231645	300	500	3.0	N	N	20	300	150	50	30	<20	70
J1231655	200	150	5.0	N	N	30	50	700	<20	10	<20	50
J1231682	N	<20	N	N	N	N	N	5	N	N	N	N
J1231702	N	<20	N	N	N	N	N	<5	N	N	N	N
J1231740	N	20	N	N	N	N	N	<5	N	N	N	N
J1231760	N	<20	N	N	N	N	30	N	N	N	N	N
J1231780	100	30	1.0	N	N	N	30	20	N	<5	N	N
J1231820	70	<20	N	N	N	N	N	<5	N	N	N	N

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Pb-ppm s	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 #
J1231010	20	N	<5	N	N	50	200	10	N	100	N	68
J1231020	N	N	N	N	N	15	N	N	N	<10	N	68
J1231030	N	N	N	N	N	<10	N	N	N	<10	N	68
J1231050	N	N	N	N	N	15	70	N	N	15	N	68
J1231070	N	N	N	N	N	10	300	N	N	10	N	68
J1231090	N	N	N	N	N	<10	50	N	N	<10	N	68
J1231110	N	N	N	N	N	<10	50	N	N	<10	N	68
J1231130	N	N	N	N	N	10	500	N	N	<10	N	68
J1231150	N	N	N	N	N	15	1,000	N	N	10	N	68
J1231170	N	N	N	N	N	20	2,000	N	<200	20	N	68
J1231190	N	N	N	N	N	<10	700	N	N	150	N	68
J1231210	N	N	N	N	N	15	500	N	N	20	N	68
J1231220	N	N	N	N	N	<10	500	N	N	<10	N	68
J1231230	N	N	N	N	N	N	150	N	N	<10	N	69
J1231250	N	N	N	N	N	15	500	N	N	50	N	81
J1231270	N	N	N	N	N	15	700	N	N	50	N	81
J1231290	20	N	<5	N	N	30	700	10	N	30	N	81
J1231310	30	N	7	N	N	70	700	20	<200	100	N	81
J1231330	50	N	15	N	200	100	1,000	30	<200	150	N	81
J1231350	30	N	15	N	100	100	700	50	200	200	N	81
J1231370	50	N	7	N	<100	70	50	20	200	100	N	81
J1231390	70	N	5	N	N	70	500	10	200	70	N	81
J1231400	100	N	N	N	N	20	300	N	300	<10	N	81
J1231420	30	N	<5	N	N	20	200	<10	N	500	N	82
J1231440	70	N	<5	10	N	30	700	<10	1,500	20	N	82
J1231460	50	N	<5	N	N	30	200	<10	500	10	N	82
J1231475	20	N	5	20	N	50	500	10	1,500	150	N	82
J1231490	70	N	<5	N	N	50	150	15	200	70	N	83
J1231510	100	N	<5	N	<100	30	500	<10	200	50	N	83
J1231530	100	N	5	N	N	70	200	10	<200	100	N	83
J1231550	70	N	5	N	100	70	150	20	<200	100	N	71
J1231567	30	N	<5	N	N	50	150	15	<200	100	N	71
J1231580	50	N	5	N	150	50	100	20	N	200	N	71
J1231600	30	N	10	N	100	70	<50	30	N	500	N	71
J1231620	30	N	5	N	<100	50	<50	20	N	150	N	71
J1231625	20	N	<5	N	N	20	<50	15	N	150	N	71
J1231635	20	N	<5	N	100	30	N	20	N	200	N	71
J1231645	30	N	5	N	100	50	50	20	N	200	N	71
J1231655	30	N	<5	N	N	30	200	10	N	100	N	71
J1231682	N	N	N	N	N	N	N	N	N	500	N	85
J1231702	N	N	N	N	N	N	N	N	N	300	N	85
J1231740	N	N	N	N	N	N	150	N	N	500	N	85
J1231760	N	N	N	N	N	N	70	N	N	70	N	85
J1231780	N	N	N	N	<100	10	50	10	N	200	N	85
J1231820	N	N	N	N	N	<10	50	N	N	100	N	85

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s
J1231864	37 56 35	94 16 27	.30	.05	N	.050	<10	N	N	N
J1231880	37 56 35	94 16 27	.50	.05	N	.070	10	N	N	N
J1231907	37 56 35	94 16 27	3.00	.20	N	.150	50	N	N	N
J1231940	37 56 35	94 16 27	7.00	2.00	.05	.500	500	N	N	N
J1231970	37 56 35	94 16 27	5.00	1.50	<.05	.500	500	N	N	N
J1231992	37 56 35	94 16 27	7.00	1.00	<.05	.200	300	N	N	N

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	B-ppm s	Ba-ppm s	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
J1231864	30	<20	N	N	N	N	N	7	N	<5	N	<5
J1231880	50	30	N	N	N	N	50	15	N	5	20	<5
J1231907	100	300	<1.0	N	N	<5	20	7	20	N	N	10
J1231940	200	1,000	3.0	N	N	10	50	15	50	N	<20	20
J1231970	150	700	2.0	N	N	10	500	10	50	10	<20	20
J1231992	150	500	2.0	N	N	7	70	7	20	N	<20	20

TABLE 2--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 123, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Pb-ppm s	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 #
J1231864	N	N	N	N	N	<10	500	N	N	300	N	85
J1231880	N	N	N	N	N	10	200	20	N	1,000	N	90
J1231907	N	N	5	N	N	50	70	15	N	150	N	90
J1231940	10	N	15	N	100	100	100	30	N	200	N	90
J1231970	<10	N	10	N	N	100	50	20	N	150	N	90
J1231992	10	N	10	N	N	70	<50	20	N	150	N	90

TABLE 3--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 124, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.

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

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s
J1240050	37 29 38	94 13 10	20.00	2.00	.15	.700	5,000	N	N	N
J1240075	37 29 38	94 13 10	15.00	1.50	.07	1.000	1,500	N	N	N
J1240105	37 29 38	94 13 10	3.00	.70	.15	.300	200	N	N	N
J1240120	37 29 38	94 13 10	5.00	.02	.10	.030	30	N	N	N
J1240140	37 29 38	94 13 10	3.00	.20	.30	.300	20	N	N	N
J1240160	37 29 38	94 13 10	5.00	1.00	.20	.500	50	N	N	N
J1240180	37 29 38	94 13 10	3.00	1.00	.20	.700	20	<.5	N	N
J1240200	37 29 38	94 13 10	15.00	1.00	.70	.500	150	.5	N	N
J1240220	37 29 38	94 13 10	1.50	.20	.30	.150	10	N	N	N
J1240240	37 29 38	94 13 10	1.50	.15	.30	.030	10	N	N	N
J1240260	37 29 38	94 13 10	.50	.02	.10	.010	<10	N	N	N
J1240280	37 29 38	94 13 10	.10	.07	.10	.015	N	N	N	N
J1240300	37 29 38	94 13 10	.15	.02	.07	.015	N	N	N	N
J1240320	37 29 38	94 13 10	.20	.10	.15	.015	N	N	N	N
J1240340	37 29 38	94 13 10	.20	.05	.20	.015	N	N	N	N
J1240360	37 29 38	94 13 10	.50	.10	.20	.050	<10	N	N	N
J1240380	37 29 38	94 13 10	5.00	2.00	.15	.300	30	N	N	N
J1240400	37 29 38	94 13 10	3.00	2.00	.10	.500	30	N	N	N
J1240410	37 29 38	94 13 10	10.00	2.00	.15	.500	50	<.5	N	N
J1240430	37 29 38	94 13 10	7.00	1.00	.05	.300	50	<.5	N	N
J1240450	37 29 38	94 13 10	2.00	1.50	.10	.300	20	N	N	N
J1240470	37 29 38	94 13 10	1.00	.50	.20	.030	N	N	N	N
J1240490	37 29 38	94 13 10	.70	.30	.20	.030	N	N	N	N
J1240510	37 29 38	94 13 10	1.00	.10	.15	.020	<10	N	N	N
J1240530	37 29 38	94 13 10	.10	.10	.10	.020	N	N	N	N
J1240550	37 29 38	94 13 10	.20	.15	.10	.020	N	N	N	N
J1240570	37 29 38	94 13 10	.50	.20	.10	.030	N	N	N	N
J1240590	37 29 38	94 13 10	.15	.30	.70	.015	N	N	N	N
J1240610	37 29 38	94 13 10	.30	.20	.30	.015	<10	N	N	N
J1240630	37 29 38	94 13 10	.20	.10	.10	.015	N	N	N	N
J1240650	37 29 38	94 13 10	.05	.15	.07	.015	N	N	N	N
J1240670	37 29 38	94 13 10	.10	.15	.15	.020	N	N	N	N
J1240690	37 29 38	94 13 10	<.05	.30	.20	.020	N	N	N	N
J1240710	37 29 38	94 13 10	.05	.30	.20	.030	<10	N	N	N
J1240730	37 29 38	94 13 10	<.05	.10	.10	.015	N	N	N	N
J1240750	37 29 38	94 13 10	.07	.10	.10	.015	<10	N	N	N
J1240770	37 29 38	94 13 10	.10	.05	.05	.005	<10	N	N	N
J1240790	37 29 38	94 13 10	.10	.02	<.05	.003	N	N	N	N
J1240810	37 29 38	94 13 10	<.05	.02	<.05	.002	<10	N	N	N
J1240830	37 29 38	94 13 10	<.05	<.02	<.05	.002	<10	N	N	N
J1240870	37 29 38	94 13 10	.15	<.02	<.05	.100	<10	N	N	N
J1240890	37 29 38	94 13 10	.10	.03	.05	.002	<10	N	N	N
J1240910	37 29 38	94 13 10	<.05	.02	<.05	.002	N	N	N	N
J1240930	37 29 38	94 13 10	<.05	<.02	<.05	.002	N	N	N	N
J1240940	37 29 38	94 13 10	<.05	<.02	<.05	<.002	N	N	N	N

TABLE 3--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 124, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	B-ppm s	Ba-ppm s	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
J1240050	100	300	2.0	N	N	30	100	70	70	N	<20	70
J1240075	100	300	3.0	N	N	20	150	50	70	N	20	70
J1240105	70	150	1.5	N	N	15	100	15	70	N	N	50
J1240120	50	30	N	N	<20	5	N	20	N	N	N	30
J1240140	70	100	<1.0	N	<20	10	100	20	100	N	<20	50
J1240160	150	200	1.5	N	N	15	150	30	70	N	<20	70
J1240180	200	150	2.0	N	<20	15	150	20	50	N	20	100
J1240200	70	150	1.0	N	N	10	100	50	70	N	N	70
J1240220	50	30	N	N	N	<5	20	5	N	N	N	15
J1240240	100	20	N	N	N	<5	10	5	N	N	N	15
J1240260	30	<20	N	N	N	N	N	N	N	N	N	5
J1240280	30	<20	N	N	N	N	N	N	N	N	N	5
J1240300	50	20	N	N	N	N	N	N	N	N	N	<5
J1240320	50	<20	N	N	N	N	N	N	N	N	N	5
J1240340	50	<20	N	N	N	N	N	N	N	N	N	<5
J1240360	70	20	N	N	N	<5	10	<5	N	N	N	7
J1240380	100	200	1.5	N	<20	5	100	30	30	N	N	30
J1240400	200	200	1.5	N	N	10	100	30	20	N	N	20
J1240410	200	200	2.0	N	N	50	150	70	N	N	<20	100
J1240430	100	150	3.0	N	N	7	70	100	20	<5	N	30
J1240450	200	300	5.0	N	N	5	70	150	50	<5	N	20
J1240470	70	100	N	N	N	N	N	20	N	N	N	10
J1240490	30	70	N	N	N	N	N	10	N	N	N	7
J1240510	30	70	N	N	N	N	N	20	N	N	N	10
J1240530	50	70	N	N	N	N	N	5	N	N	N	<5
J1240550	50	50	N	N	N	N	N	<5	N	N	N	<5
J1240570	50	50	N	N	N	N	N	<5	N	N	N	<5
J1240590	70	30	N	N	N	N	N	N	N	N	N	<5
J1240610	50	30	N	N	N	N	N	20	N	N	N	5
J1240630	50	30	N	N	N	N	N	20	N	N	N	<5
J1240650	50	<20	N	N	N	N	N	N	N	N	N	<5
J1240670	30	50	N	N	N	N	N	N	N	N	N	<5
J1240690	100	50	N	N	N	N	N	N	N	N	N	<5
J1240710	100	70	N	N	N	N	N	N	N	N	N	<5
J1240730	70	50	N	N	N	N	N	N	N	N	N	<5
J1240750	30	30	N	N	N	N	N	N	N	N	N	<5
J1240770	20	20	N	N	N	N	N	N	N	N	N	<5
J1240790	10	<20	N	N	N	N	N	N	N	N	N	<5
J1240810	20	20	N	N	N	N	N	N	N	N	N	N
J1240830	10	20	N	N	N	N	N	N	N	N	N	N
J1240870	10	20	N	N	N	N	N	1,000	N	N	N	<5
J1240890	30	<20	N	N	N	N	N	5	N	N	N	<5
J1240910	30	N	N	N	N	N	N	<5	N	N	N	N
J1240930	50	<20	N	N	N	N	N	7	N	N	N	<5
J1240940	30	N	N	N	N	N	N	N	N	N	N	<5

TABLE 3--SPECTROGRAPHIC ANALYSES OF INSOLUBLE-RESIDUE SAMPLES FROM DRILL HOLE NO. 124, JOPLIN 1 x 2 QUADRANGLE, MISSOURI AND KANSAS.--Continued

Sample	Pb-ppm s	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 #
J1240050	15	N	20	N	100	100	N	50	<200	300	N	20
J1240075	20	N	30	N	200	150	N	50	<200	200	N	20
J1240105	15	N	10	N	200	70	N	70	N	100	N	40
J1240120	N	N	N	N	N	15	N	N	700	10	N	40
J1240140	<10	N	5	N	100	50	N	30	700	150	N	40
J1240160	15	N	10	N	100	100	N	50	<200	200	N	40
J1240180	15	N	15	N	N	70	N	50	N	200	N	40
J1240200	10	N	7	N	N	50	N	50	N	150	N	40
J1240220	N	N	<5	N	N	20	N	N	N	70	N	40
J1240240	N	N	N	N	N	15	N	N	N	20	N	40
J1240260	N	N	N	N	N	N	N	N	N	N	N	40
J1240280	N	N	N	N	N	N	N	N	N	N	N	40
J1240300	N	N	N	N	N	N	N	N	N	N	N	40
J1240320	N	N	N	N	N	10	N	N	N	N	N	40
J1240340	N	N	N	N	N	<10	N	N	N	N	N	40
J1240360	N	N	N	N	N	15	N	N	N	15	N	40
J1240380	10	N	7	N	N	70	N	20	<200	300	N	40
J1240400	15	N	7	N	N	150	N	20	N	150	N	40
J1240410	30	N	10	N	N	150	N	30	<200	150	N	40
J1240430	<10	N	5	N	N	100	N	N	N	100	N	65
J1240450	<10	N	7	N	N	200	N	20	700	150	N	65
J1240470	N	N	N	N	N	<10	N	N	N	20	N	65
J1240490	N	N	N	N	N	10	N	N	N	30	N	65
J1240510	N	N	N	N	N	N	N	N	N	20	N	65
J1240530	10	N	N	N	N	N	N	N	N	<10	N	66
J1240550	N	N	N	N	N	<10	N	N	N	10	N	66
J1240570	N	N	N	N	N	10	N	N	N	20	N	66
J1240590	N	N	N	N	N	N	N	N	N	N	N	66
J1240610	N	N	N	N	N	N	N	N	N	N	N	66
J1240630	N	N	N	N	N	<10	N	N	N	N	N	66
J1240650	N	N	N	N	N	N	N	N	N	N	N	66
J1240670	N	N	N	N	N	N	N	N	N	N	N	66
J1240690	N	N	N	N	N	N	N	N	N	10	N	66
J1240710	N	N	N	N	N	15	N	N	N	20	N	67
J1240730	N	N	N	N	N	N	N	N	N	<10	N	67
J1240750	N	N	N	N	N	10	N	N	N	<10	N	67
J1240770	N	N	N	N	N	<10	N	N	N	<10	N	67
J1240790	N	N	N	N	N	N	<50	N	N	N	N	67
J1240810	N	N	N	N	N	N	N	N	N	N	N	67
J1240830	N	N	N	N	N	N	N	N	N	300	N	67
J1240870	N	N	N	N	N	N	N	N	N	<10	N	68
J1240890	N	N	N	N	N	N	N	N	N	N	N	68
J1240910	N	N	N	N	N	N	N	N	N	N	N	68
J1240930	N	N	N	N	N	<10	N	N	N	N	N	68
J1240940	N	N	N	N	N	N	N	N	N	N	N	68