UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

# Geochemistry of altered and mineralized rocks from the Morey and Fandango Wilderness Study Areas, Northern Hot Creek Range, Nye County, Nevada

By

J. T. Nash, D. A. John, M. J. Malcolm,

Paul Briggs, and J. G. Crock

Open-File Report 86-410



1986

## CONTENTS



## ILLUSTRATIONS

## TABLES

## ABSTRACT

The Northern Hot Creek Range contains several formerly productive silver-gold deposits at Morey and in Hot Creek Canyon, as well as a newly discovered large area of silicified Paleozoic carbonate rocks and shale that is an exploration target for sediment-hosted disseminated gold (Carlin-type) deposits. Geochemical studies of mineralized rock samples from mines, prospects, and outcropping alteration provide a basis for assessing the mineral resource potential of the Morey and Fandango Wilderness Study Areas. Analytical results for 33 elements in 299 rock samples are presented.

Two major types of deposits are known in the Northern Hot Creek Range: polymetallic veins rich in silver (as at Morey), and sediment-hosted deposits rich in As-Hg-Mo-Sb-Tl that geologically and geochemically resemble Carlin-type disseminated gold deposits. The polymetallic veins with Ag-Cu-Fe-Pb-Zn sulfide minerals occur chiefly in Tertiary welded tuff, but geochemically similar vein deposits occur in three areas of silicified carbonate rocks in and adjacent to the northern part of the Fandango study area. The Page Antimony deposit, in tuff and limestone near Hot Creek Canyon, seems to be generally similar to polymetallic veins at Morey and Tybo, 13 miles to the south (fig. 1), but stibnite ($Sb_2S_3$) is prominent. These polymetallic deposits are very rich in many metals, including Ag, Cu, Mn, Mo, Pb, Sn, Zn, As, Sb, and Bi, and produce prominent geochemical anomalies in rock and stream-sediment samples. Silicified calcareous sedimentary rocks along the intersections of Paleozoic thrust faults with Tertiary high-angle faults, contain very high contents of As, Hg, Mo, Sb, and Tl that often are in excess of 150, 0.5, 15, 20, and 1.0 parts per million, respectively. Gold content of the outcropping silicified rocks and jasperoid is generally less than 0.10 ppm, although gold in the range of 0.10 to 0.3 ppm was detected in eight samples. These geochemical data indicate that an area of about 5 sq mi, with silicification, highly anomalous multi-element geochemistry, and intense brecciation, appears to be favorable for disseminated gold deposits.

## STUDIES RELATED TO WILDERNESS

The Federal Land Policy and Management Act (Public Law 94-579, October 21, 1976) requires the U.S. Geological Survey and U.S. Bureau of Mines to conduct mineral surveys on certain areas to determine their mineral values, if any, that may be present. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of parts of a geochemical survey of the Morey (NV-060-191) and Fandango (NV-060-190) Wilderness Study Areas, Nye County, Nevada. Part of this work was also done during studies of the Tonopah 1° x 2° quadrangle as part of the Conterminous United States Mineral Assessment Program (CUSMAP).

## INTRODUCTION

The contiguous Morey and Fandango Wilderness Study Areas (WSAs) are located in the northern part of the Hot Creek Range, Nye County, Nevada (fig. 1). For this report, we investigated mines, prospects, and altered rocks in an area of about 56,000 acres of the Morey and Fandango WSAs, as well as in areas within about 5 miles of the WSAs. In this report "wilderness study area" refers to the 56,000-acre area, not to surrounding areas that we also studies. Adjacent to these areas are several mining camps with a history of production dating back to 1866 (Kleinhampl and Ziony, 1984), most notably

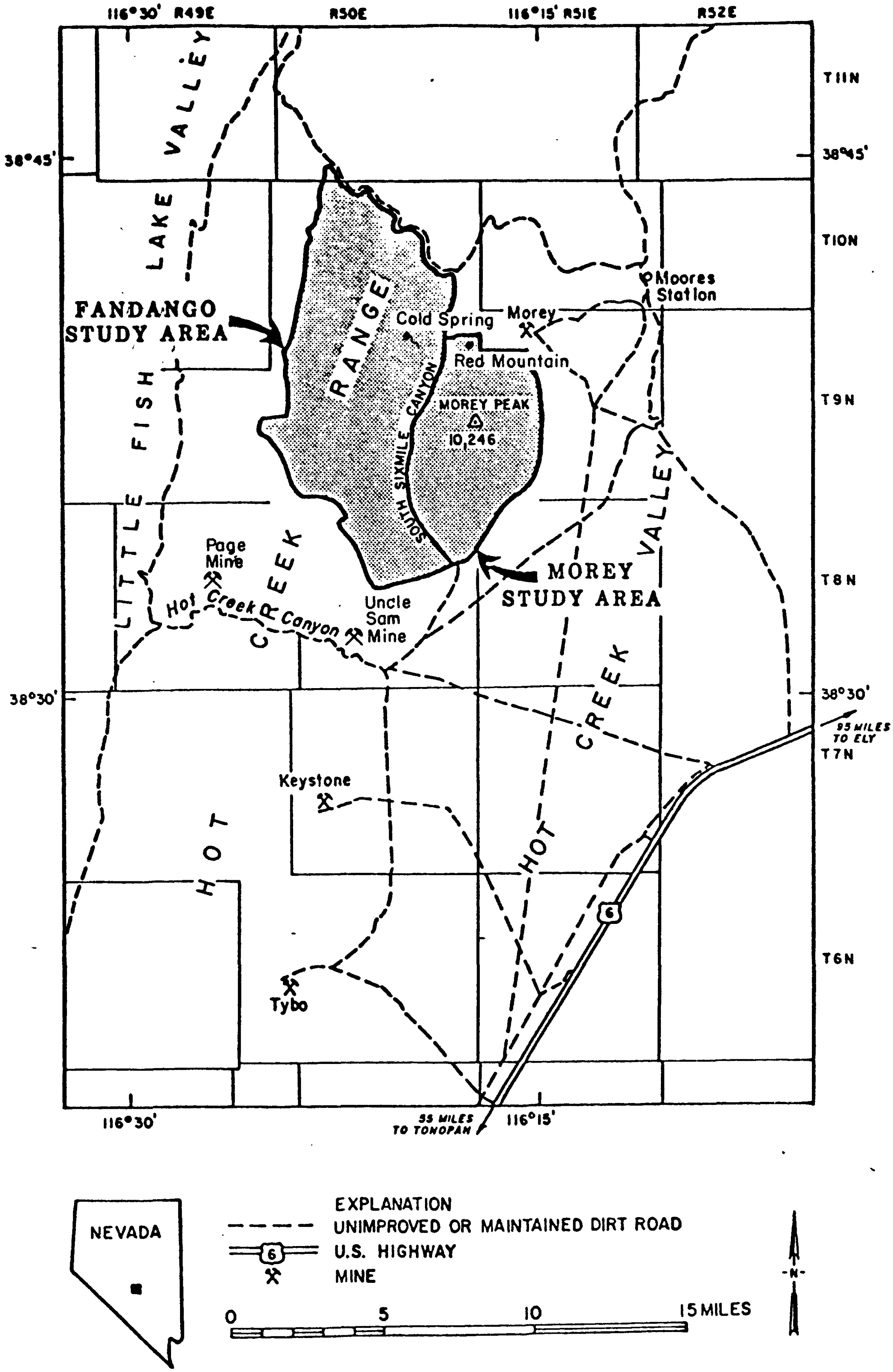


Figure 1.--Index map of the Fandango and Morey Wilderness Study Areas in the northern Hot Creek Range, Nye County. Nevada.

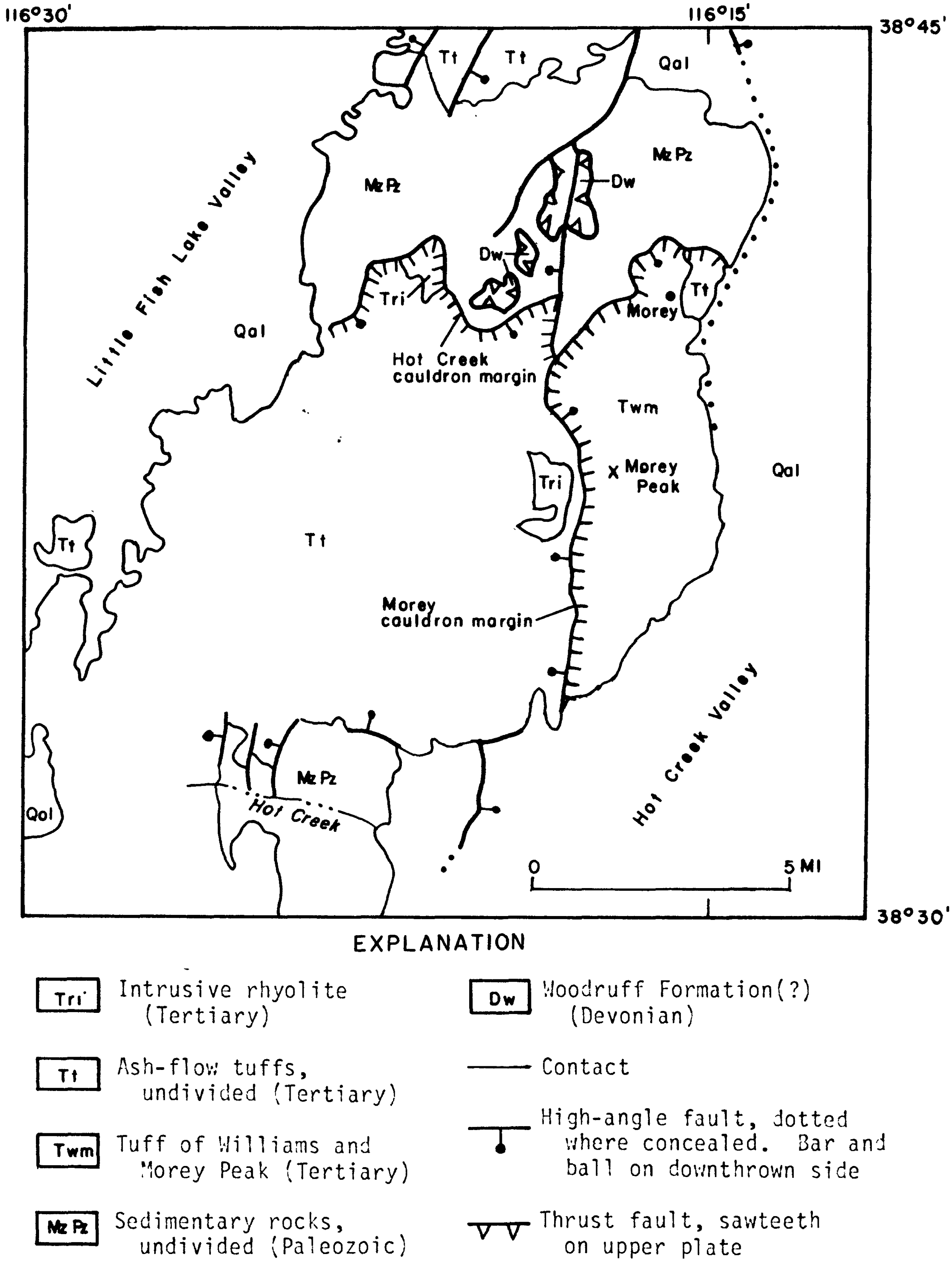


Figure 2.--Simplified geologic map of the northern Hot Creek Range. Simplified from John (1986) and Kleinhampl and Ziony (1985).

in Hot Creek Canyon and at Morey (figs. 1 and 2). We have investigated aspects of the geology and geochemistry of parts of the areas, and report some of our findings here as a guide to mineral exploration and as a geochemical framework for assessment of mineral resources in the WSAs. A companion paper (Saunders and others, 1986) provides information on the geochemistry of stream sediments collected in these areas.

The Morey area is characterized by very rugged topography, with more than 4,000 ft of relief along the spectacular eastern range front that culminates in the 10,246-ft summit of Morey Peak. Several deep canyons traverse the southern part of the area, most notably Hot Creek Canyon. Topography is more subdued in the western part of the area, with elevations ranging from about 6,400 ft to 9,825 ft. There are several ranches in Hot Creek Canyon, but old settlements at Morey and Moores Station are no longer occupied. Many good-graded or jeep roads traverse the perimeters of the area to provide relatively good access.

Studies of the Hot Creek Range and adjacent areas in the 1960's by the U.S. Geological Survey provided a wealth of geologic information (e.g., Ekren and others, 1973). We have benefited from unpublished geologic mapping in the Morey 15' quadrangle by W. J. Carr, H. W. Dodge, Jr., and F. W. Byers, Jr. of the U.S. Geological Survey. The studies of Kleinhampl and Ziony (1984, 1985) also have been of great help. Unpublished theses by Potter (1976) and by Lenzer (1972) provide helpful detailed information on stratigraphy of pre-Tertiary rocks and on geology and mineral deposits in the Morey mining area, respectively.

## SAMPLING AND ANALYTICAL PROCEDURES

Samples collected for chemical analysis were composite or single rock samples from outcrops, mine exposures, dumps, or cuttings from holes drilled by industry. In most cases "high grade" material was selected according to visual criteria such as quartz veins, alteration, or iron oxides in an effort to accentuate geochemical anomalies. Some unaltered rocks were collected for information on background values. In our experience, samples with visible sulfide or oxide minerals produce enhanced elemental signatures that are useful in characterizing the occurrence; assaying is not an intent of these studies. Notes on lithology, alteration, and structure were made at all sites. Descriptions of analyzed samples are in appendix 1, and sample localities are shown on plate 1 and figure 3.

### Sample preparation and chemical analysis

All samples were crushed and then pulverized using an agate shatterbox to attain a grain size smaller than 100 mesh (0.15 mm). All samples were analyzed for 31 elements using a semiquantitative, direct-current arc emission spectrographic method; 252 samples were analyzed by Malcolm using the method of Meyers and others (1961). The limits of determination of this method are summarized in table 1. Another group of 47 samples was analyzed by D. F. Siems using a similar method (Grimes and Marranzino, 1968); limits of determination are slightly different, as is evident in table 3. Spectrographic results are obtained by visual comparison of spectra derived from the sample against spectra obtained from standards made of pure oxides and carbonates. Standard concentrations are geometrically spaced over any given order of magnitude of concentrations as follows: 100, 50, 20, 10, and so forth. Samples whose concentrations are estimated to fall between those

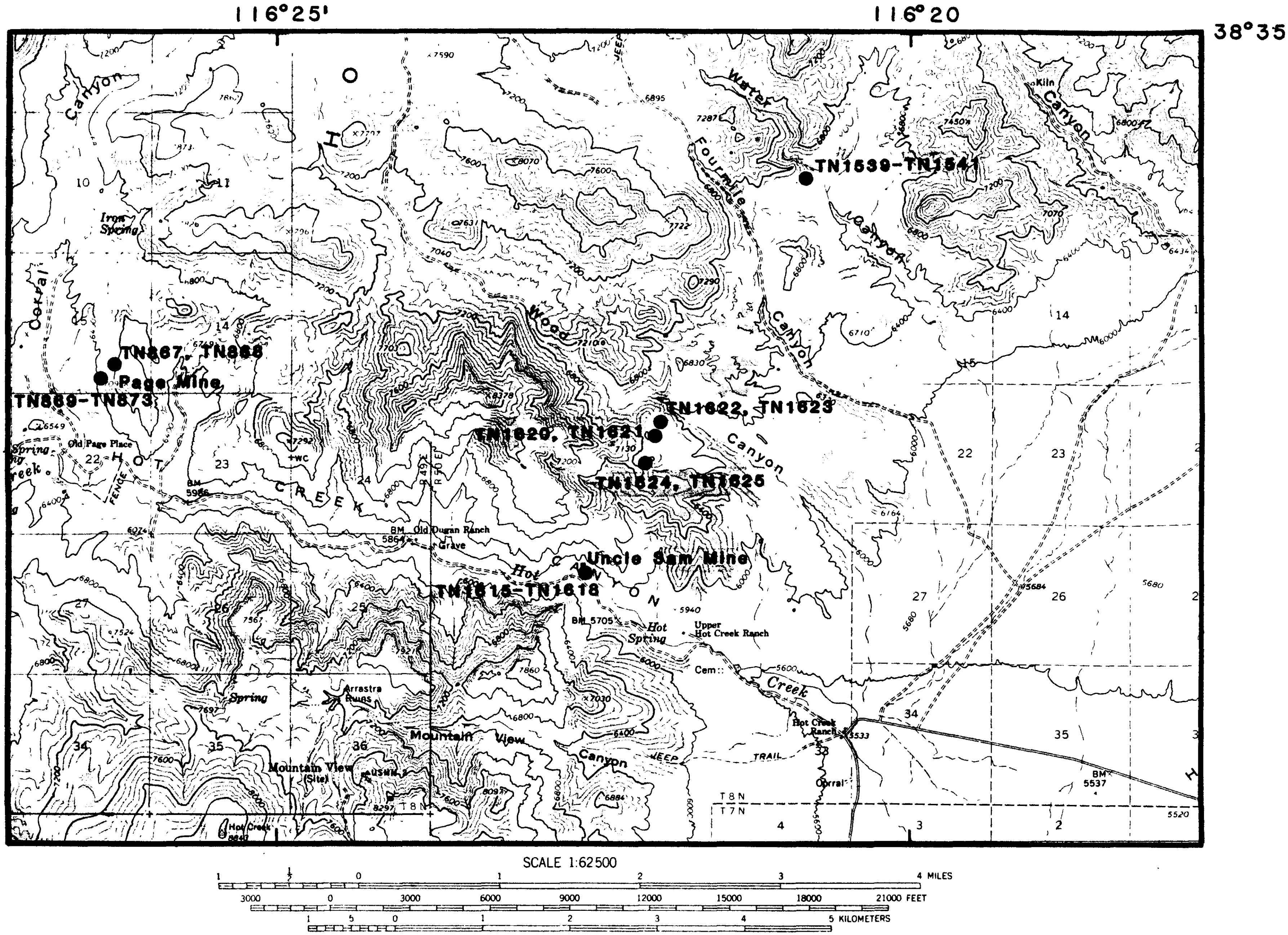


Figure 3.--Sample localities in the southern part of the Fandango and Morey Wilderness Study Areas. The majority of sample localities are shown on plate 1.

values are assigned values of 70, 30, 15, and so forth. The precision of the method is approximately plus or minus one reporting unit at the 83 percent confidence level and plus or minus two reporting units at the 96 percent confidence level (Motooka and Grimes, 1976). Values determined for the major elements (iron, magnesium, calcium, and titanium) are reported in weight percent of the element; all other elements are reported in parts per million (micrograms per gram) (table 1).

All samples were also analyzed by wet chemical procedures (O'Leary and Viets, 1985) for determination of elements of special interest or which have high limits of determination by emission spectrography. Gold, As, Bi, Cd, Hg, Sb, Tl, and Zn were determined by wet chemical methods indicated in table 2.

Upon completion of the analytical work, results were entered into a computer-based system called Rock Analysis Storage System (RASS) that contains both the analytical data and descriptive geologic and geographic information for each sample. Parts of the RASS data were retrieved under a slightly different format and manipulated using routines of the STATPAC system (VanTrump and Miesch, 1977).

Analytical results are listed in table 3, and a statistical summary of the analytical data is in table 4.

## GEOLOGIC SETTING

The Northern Hot Creek Range has had a long and complex geologic history that can only be summarized briefly here; for more detailed descriptions see other reports (Kleinhampl and Ziony, 1985; John, 1986; Ekren and others, 1973, 1974), which are the basis for the following summary. Oldest rocks in the area are lower Paleozoic miogeoclinal carbonate rocks and lesser amounts of interbedded quartzite and calcareous shale (fig. 2). Stratigraphic nomenclature of these rocks is controversial because of complex structure and severe alteration. Local areas are underlain by middle Paleozoic eugeoclinal, fine-grained siliceous sedimentary rocks that have been emplaced over carbonate rocks by thrust faults, probably during the Antler orogeny (Late Devonian-Early Mississippian). In the Fandango area these siliceous sediments are commonly brecciated and highly altered along the thrusts, and the underlying carbonate rocks are locally converted to jasperoid.[1]

A thick sequence of middle Tertiary volcanic rocks lap over the pre-Tertiary sedimentary units or are faulted against them. Felsic welded tuff units are very thick and massive with a total thickness in excess of 6,000 ft. One unit, the tuff of Williams Ridge and Morey Peak, is an intracaldera tuff at least 4,000 ft thick and is host rock at Morey and adjacent "Red Mountain" (fig. 1). Another unit, the tuff of Hot Creek Canyon, dominates the area south of Fandango. It is about 2,000 ft thick and is

---

[1]The term jasperoid is best reserved for siliceous alteration of carbonate rocks, as opposed to silicification of other types of rocks. In the study area much of the silicification is so intense that identification of the protolith can be unreliable, but we have attempted to use the term jasperoid only for rocks thought to have been limestone or dolomite, and we term other varieties silicified shale, silicified tuff, and so forth as appropriate. However, for simplification we will at times use the term jasperoid for the group of silicified sedimentary rocks.

inferred to have filled a cauldron whose northern margin passes through Cold Spring (fig. 1). Dikes and plugs of rhyolitic to andesitic composition intrude the tuffs and sedimentary rocks, most notably west and northwest of the Morey mining camp where they were emplaced along the cauldron margin, and near Lower Fandango Spring.

Structure of the area is a complex mosaic of thrust faults, high-angle faults, and two-nested cauldrons. The low-angle faults are cut by north- to northeast-trending high-angle faults that displace Tertiary rocks. The intersection of north- to northeast-trending high-angle faults with the low-angle faults appears to be an important control on the distribution of silicification in sedimentary rocks in the Cold Spring area to be described later. Basin and Range high-angle faults of Miocene-Pliocene age downdropped the Little Fish Creek and Hot Creek valleys relative to the Hot Creek Range and produced a tilt in the range of about 20 to as much as 40 degrees to the west.

## GEOLOGY AND GEOCHEMISTRY OF KNOWN MINERAL DEPOSITS

Silver-rich veins at Morey were discovered in 1865, and other discoveries were made in the Hot Creek Range over the next 5 years. About $500,000 worth of silver-lead ore, with minor gold was mined at Morey, chiefly prior to 1891, but with some small production between 1937 and 1947 (Kleinhampl and Ziony, 1984). The Uncle Sam deposit in Hot Creek Canyon may have been discovered in 1866. The Page mine, also in Hot Creek Canyon (fig. 1), was most productive in 1916. Interest in the Morey camp increased in the 1960's when it was examined as a potential porphyry molybdenum system (Lenzer, 1972). Other exploration efforts through 1984 investigated Red Mountain west of the original silver camp at Morey for potential disseminated porphyry deposits of molybdenum-copper or tin. Scattered prospect pits, a few small mine workings, and some drill holes in the range testify to various prospecting efforts over the years, although none were successful (Kleinhampl and Ziony, 1984). In 1982, Bill Walker of Canyon Resources recognized jasperoid alteration zones near Cold Spring and staked the area as a target for sediment-hosted Carlin-type gold deposits. Since then, Long Lac Minerals of Reno has established a block of more than 300 claims in the Cold Spring-Cow Canyon-Six Mile Canyon area, has undertaken detailed geologic and geochemical studies, and has drilled more than 20 holes.

Our investigations in 1984 focused on these known areas of mineralization, and we also sampled many visibly altered rocks encountered while making geologic traverses.

### Morey district

This small mining camp (fig. 1) was a historic producer of silver from ores rich in Pb-Zn-Cu-As-Sb. The veins occur in Tertiary welded tuff and have quartz-sericite-pyrite alteration selvages. Most of the values were in silver, with some credits for lead and gold (and penalties for zinc). The main camp at the base of the mountain worked veins with complex Ag-Pb-Sb-S minerals and their oxidized derivatives; many rare silver minerals have been identified in the Morey ores (Williams, 1968). Gangue in the veins is Mn-calcite, quartz, and fairly abundant pyrite. Tin was known to be present in the ores, and Williams (1968) discovered cassiterite. Some silver prospects occur at the top of "Red Mountain" (fig. 1), and these also contain hundreds of parts per million tin.

Exploration of the Morey district over the past 20 years has focused on disseminated types of Mo-Cu porphyry and Sn-porphyry ores. Some of the geologic studies are described in a thesis by Lenzer (1972). Exploration in the late 1960's located a zone of disseminated sulfide minerals (chiefly pyrite) west of the main productive part of the district, but a few drill holes into the zone produced no encouraging results (Kleinhampl and Ziony, 1984). The area has been known to contain anomalous amounts of molybdenum and is listed as a molybdenum occurrence or deposit in several publications (e.g., Schilling, 1968). In the late 1970's, another exploration effort was mounted by Superior Oil in search of the elusive molybdenum deposit; several more holes were drilled, but produced no encouraging results. In 1981 a new joint venture by Canorex International evaluated the district as a disseminated tin prospect, in part based on the suggestion by Williams (1968) that the Ag-Sn mineralogy and setting resembled that of the Bolivian tin belt (cf. Chace, 1947; Sillitoe and others, 1975). Implicit in the exploration models for Mo or Sn is the existence of a late-stage silicic intrusion below Red Mountain. To our knowledge no such intrusive rock has been identified at the surface or in drill core. Red Mountain appears to be comprised of a very thick (about 4,000 ft) monotonous intracaldera tuff. The tuff is variably altered, pyritized, and locally anomalous in elements such as Mo and Sn, but appears to be lacking a crucial element--the right kind of stock at depth. The hole drilled in 1983 in search of disseminated tin, collared at the top of Red Mountain, displayed abundant quartz-sericite-pyrite alteration in the upper 1,000 ft, but toward the bottom of the 1,980-ft-deep hole the tuff showed only weakly propylitic alteration (T. Nash, brief observation of core provided by V. J. Barndt, claim owner).

**Hot Creek Canyon**

Two deposits in Hot Creek Canyon are of interest here as examples of types of deposits that might exist farther north in the WSAs. The Uncle Sam deposit is on the north side of the canyon (fig. 1), in a fault zone that juxtaposes Paleozoic carbonate rock units. The host rock is a thick-bedded limestone that is silicified along the Uncle Sam vein. The ore being mined in 1984 was oxidized, siliceous material with some green copper oxide stains, taken from a small pit excavated along the vein. The ore assayed about 12 oz/ton silver. An outcropping part of a vein consisted chiefly of dense, black chalcedonic silica. Primary ore minerals are probably chiefly tetrahedrite or similar Ag-Cu-Sb sulfosalt minerals. Four mi west and up a side canyon is the Page Mine that produced some antimony in 1916 (Kleinhampl and Ziony, 1984). This vein deposit occurs along a north-trending high-angle fault that downdrops Tertiary welded tuff (west side) against a Silurian dolomite unit. Veinlets and alteration occur in both rock types, indicating that the age of mineralization is Tertiary. Most of the material on several small dumps and in small mine exposures is very rich in porous to resinous, dark brown iron oxides, and is essentially a gossan formed from what must have been sulfide-rich vein-filling material. Fine-grained to vuggy quartz is the most notable gangue mineral. The iron oxides contain abundant arsenic, barium, and antimony, plus substantial amounts of silver, gold, and zinc, but little copper or lead.

**Cold Spring Jasperoid zone**

One of the largest and most conspicuous zones of alteration that we have seen in the Tonopah 1°x 2° quadrangle is exposed in craggy outcrops of jasperoid scattered over much of a 12-sq-mi area north of Cold Spring (fig. 1), mostly between Six Mile Canyon and Big Cow Canyon. The silicified crags have a prominent orange-brown color in outcrop, although some zones are more reddish, and a few silicified rocks are dark brown to black. The silicification generally occurs along low-angle thrust faults and is most intense at intersections of these faults with north to northeast striking high-angle faults that have small displacements. The jasperoids stand in bold relief due to their resistance to weathering. In most cases the protolith was shale and calcareous shale of the Devonian Woodruff Formation structurally overlying a thick-bedded carbonate unit (Devonian Devils Gate Formation). Prior to silicification much of the rock was thin bedded or brecciated, but most other aspects of the protoliths are obliterated by the intense and often total silicification. Fine-grained pyrite can be found within some silicified rocks, but in most places the rock is oxidized. Brown, yellow, or orange films of oxides coat most of the altered rocks and chemical analyses indicate 1 to more than 10 percent total iron is present. Cubic casts of iron oxides are rare, thus it is difficult to estimate how much pyrite may have been in the silicified rocks. Although most of the altered rocks are highly fractured, there are only rare exposures giving evidence for multiple stages of fracturing and silicification.

Milky- to bluish-white chalcedonic silica occurs on the ridge west of Big Cow Canyon in large blocks of float and in some outcropping veins. This silica has the appearance of a hot-springs precipitate, but no laminated sinter was seen that would indicate surface discharge. The texture of this silicification is different from that near Cold Spring but may be of the same age.

Tertiary welded tuffs that occur north and south of the jasperoid zone are somewhat altered but not nearly as much as the Paleozoic rocks. North of Luther Waddles Wash, tuffs overlie Paleozoic rocks; both rock types are weakly altered. South of Cold Spring, tuffs probably are in fault contact with the Paleozoic rocks; drilling suggests a series of faults that drop the Tertiary-Paleozoic contact on the south side of what must be the cauldron margin (R. E. Bennett, Long Lac Mineral Exploration, oral commun., 1985). In a few places near Cold Spring the tuffs are silicified, but more typically they are argillized. The tuffs generally are not enriched in the jasperoid suite of elements discussed below, although sample TJMP144C is an exception to that rule. We presume that the silicification is a mid-Tertiary process because north-trending faults that influence the distribution of intense silicification displace mid-Tertiary tuffs. The presence of little-altered tuffs next to highly altered Paleozoic rocks is probably explained by post-alteration faulting.

## GEOCHEMICAL SIGNATURES AND DISTRIBUTION OF GEOCHEMICAL ANOMALIES

Based on geology and geochemistry we recognize two geochemical signatures in the study area: (1) Morey-type characterized by enrichments in base metals and silver (of prime economic interest) and (2) Jasperoid-type characterized by the "volatile" suite of elements As-Hg-Sb-Tl found in many epithermal ore deposits and generally considered to be useful pathfinder elements to precious-metal deposits (Berger and Eimon, 1983). Elements enriched in the two signatures are summarized in table 5. In our regional study of the Tonopah 1° x 2° quadrangle we have found similar compositions in mineralogically similar ores and alteration, but the geochemical data from this study happens to contain some of the highest concentrations of key elements that we know. Particularly noteworthy is the high content of Sn in the Morey ore signature, and the very high concentrations of As-Hg-Mo-Sb-Tl in the silicified sedimentary rocks.

The Morey ores are rich in Ag, As, Cu, Cd, Mn, Pb, Sb, Sn, and Zn. Our samples from the Page mine (TNH00868-TNR00873, table 3) have some similarities to the Morey suite in their high content of Ag, As, Mn, Sb, and Zn, but are notably richer in Au and poorer in Cu and Pb. There are many other deposits in the region, such as at Tybo, Reveille, and Belmont, that are rich in base metals (Pb, Zn, Cu, Sb, As) but valuable chiefly for silver, especially in the oxidized zone. The base-metal suite of metals is recognized in the present dataset (table 3) by factor analysis[2] (Davis, 1973). Some of the samples characterized by the Morey-type polymetallic suite come from outside of the Morey mining camp. Most of these are from Six Mile Canyon, some are near the barite prospect (3.5 mi north of Cold Spring), and others are from an area of silicified rocks on the hill 2 mi northwest of Cold Spring (fig. 4) characterized by milky-blue chalcedonic veins.

The jasperoids north of Cold Spring are rich in silica, and contain very unusual amounts of As-Hg-Sb-Tl and Mo, but contain less than 1 ppm Ag (table 5). The distribution of samples having highest concentrations of these elements is shown in figures 5 to 9. Correlation and factor analyses demonstrate positive association of these elements in jasperoid, and negative association with Ca and Mg. The geochemical associations are typical of Carlin-type gold systems (Radtke and others, 1980). Samples rich in the jasperoid suite of elements are shown on figure 10; these samples were identified by factor analysis but essentially the same map distribution is obtained by the plotting of sites rich in several elements of the suite including As, Hg, Mo, Sb, and Tl. Many of the jasperoids are rich in all five of these elements, and some are enriched in two or three. In detail, the distribution of As and Sb are somewhat different, but both are generally rich in the zone indicated.

Molybdenum is enriched in many of the jasperoids (table 5), with many samples containing 30 to 100 ppm Mo. The distribution of jasperoid samples with more than 15 ppm Mo (fig. 9) resembles that of samples rich in As-Sb-Hg, but in detail the Mo-rich samples are more scattered than those rich in the volatile suite. For the samples with more than 15 ppm Mo, Mo correlates highly with Fe, As, and Hg. The distribution and associations of Mo do not resolve questions of its source. Many Mo-rich jasperoids formed in Woodruff

---

[2]The factor analyses utilized the varimax rotation and were run on a data set from which variables with fewer than about 50 percent valid determinations had been deleted, and the data was log transformed to reduce the effect of abnormal distributions caused by some highly enriched samples. The factor analysis computes sample scores that express how the sample composition compares with extreme sample compositions identified as factor end members; the sample scores for various factors are essentially multielement variables that are particularly useful for geochemical maps summarizing geochemical trends.

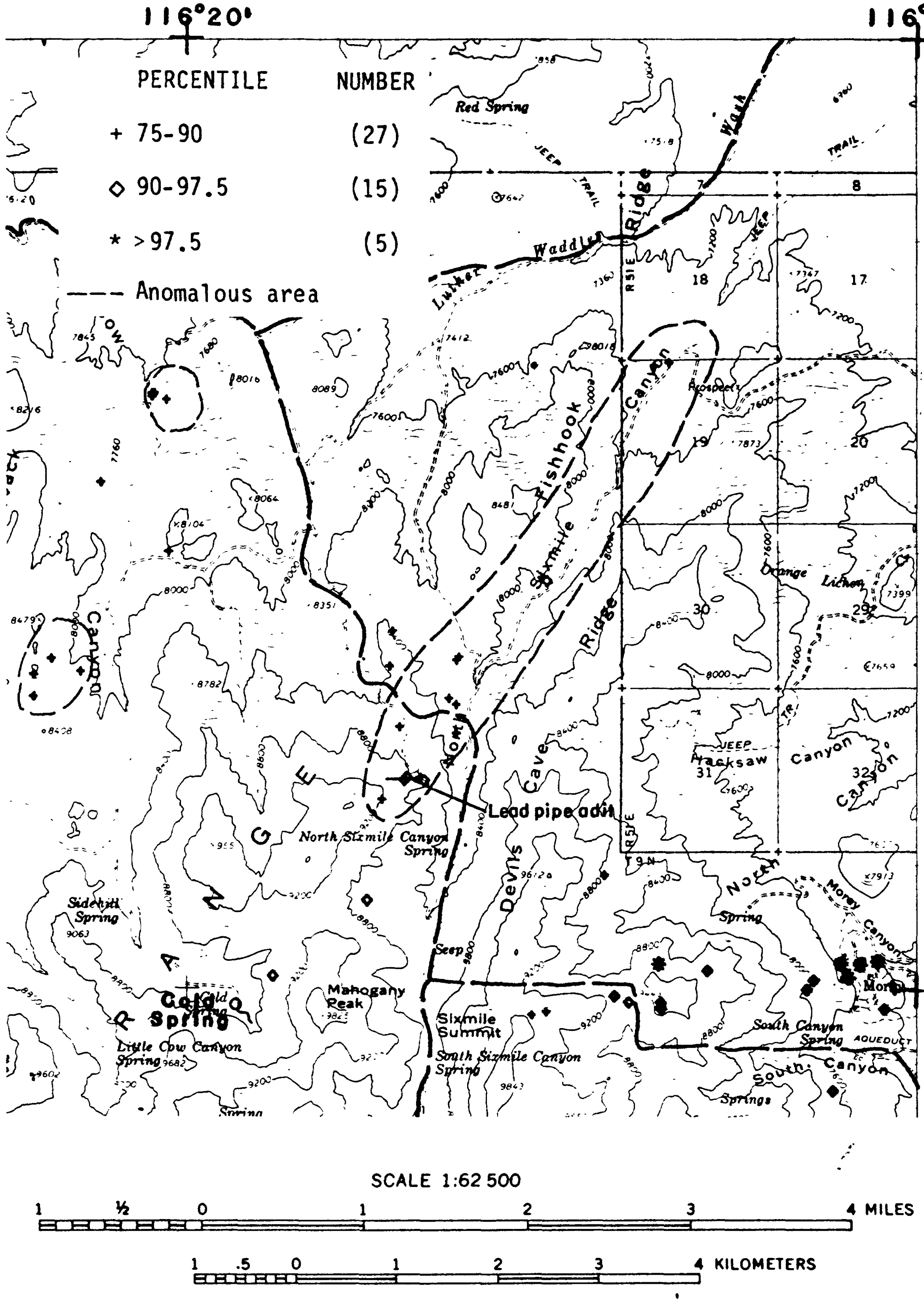


Figure 4.--Distribution of samples with high sample scores for "Morey-type" suite of elements (Pb-Ag-Zn-Mn-Cu-Sb)

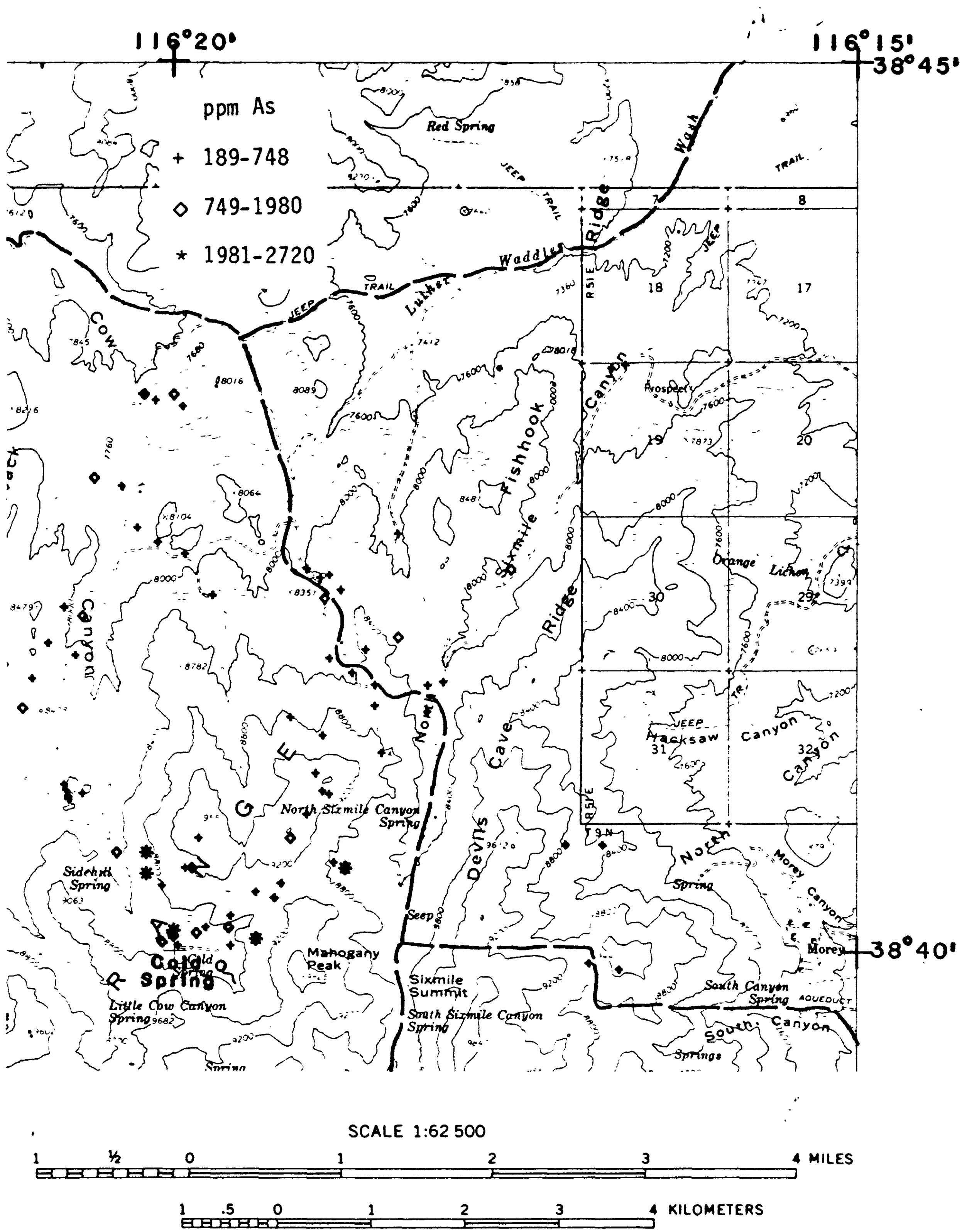


Figure 5.--Distribution of arsenic in altered rocks in the Cold Spring area.

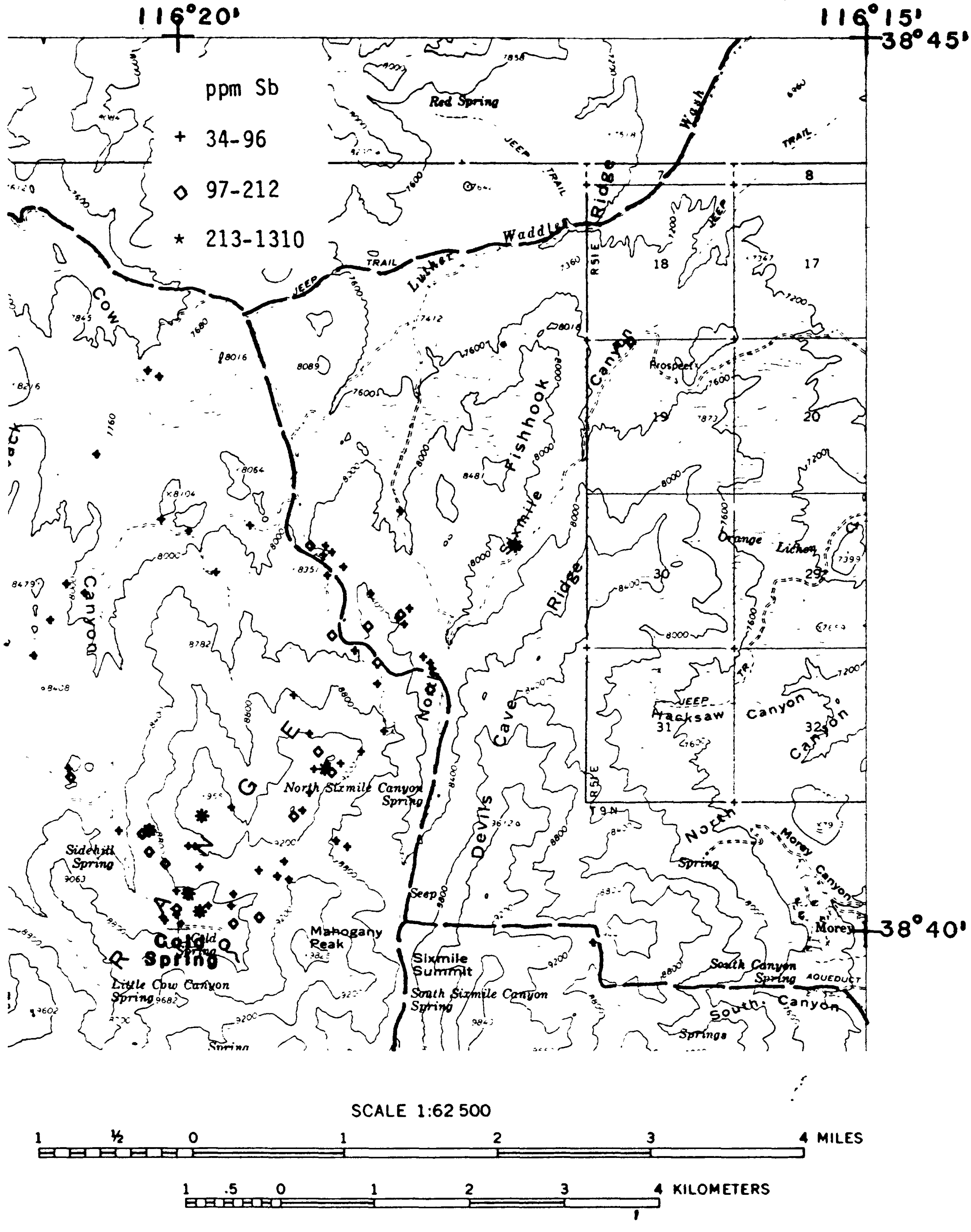


Figure 6.--Distribution of antimony in altered rocks in the Cold Spring area.

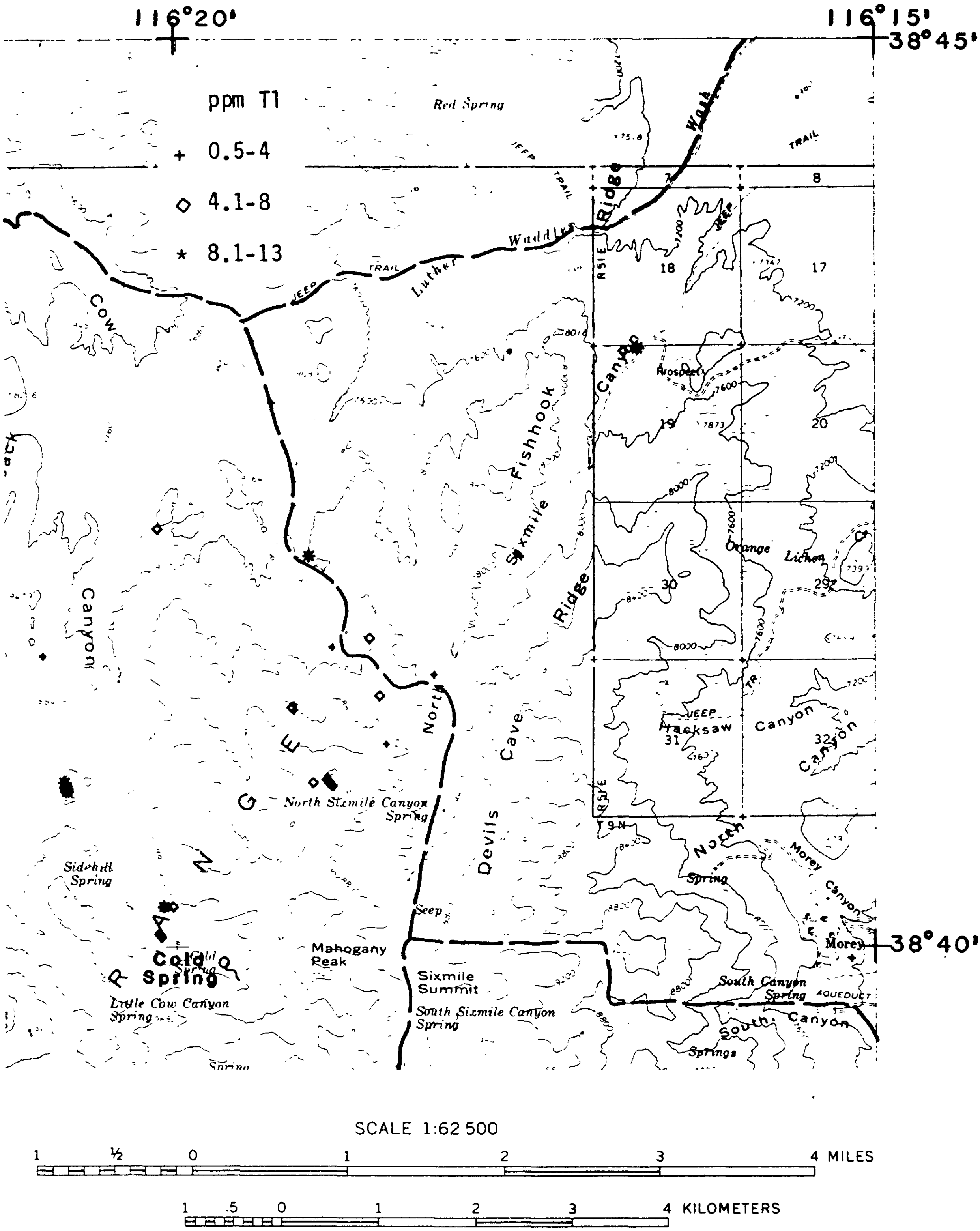


Figure 7.--Distribution of thallium in altered rocks in the Cold Spring area.

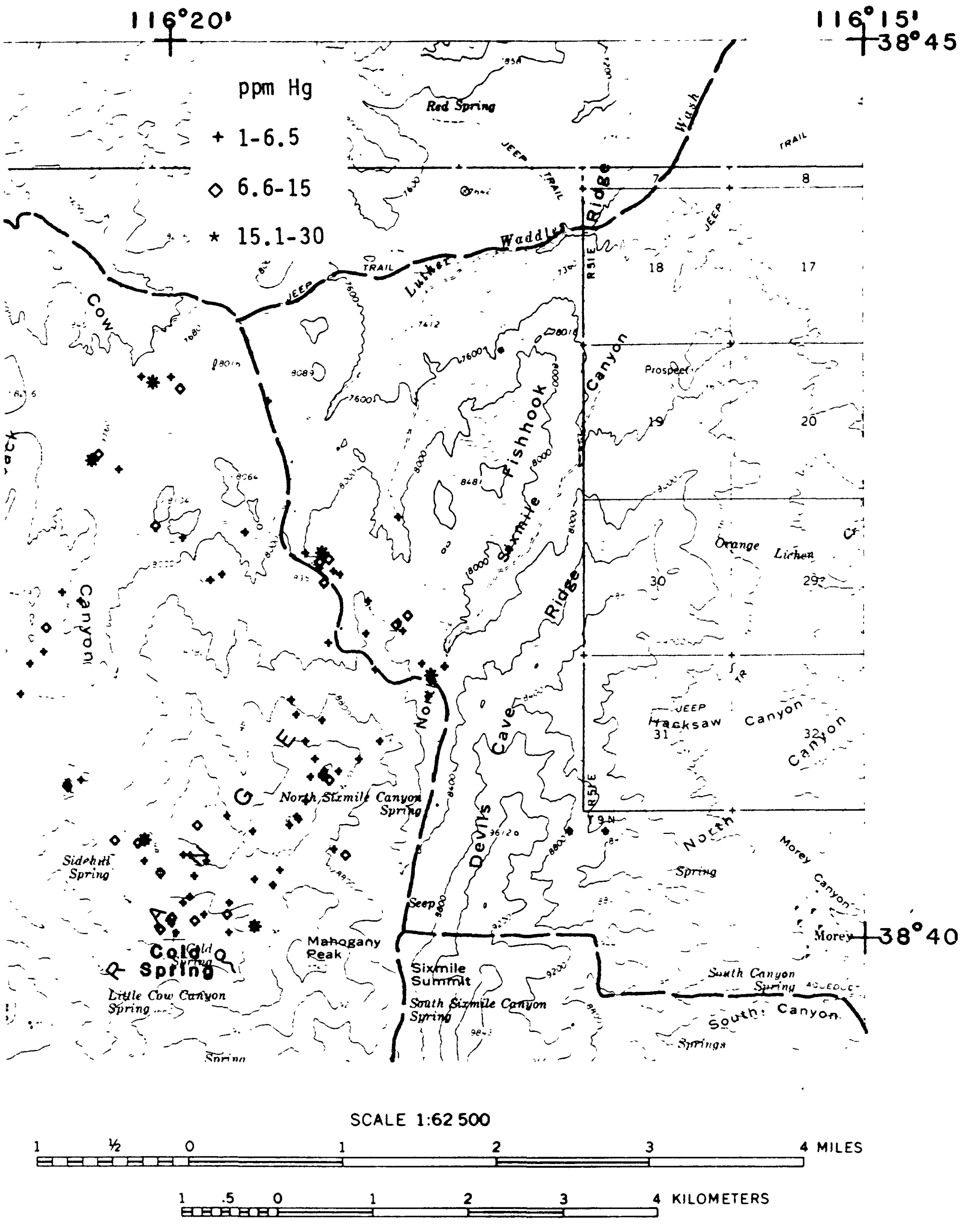


Figure 8.--Distribution of mercury in altered rocks in the Cold Spring area.

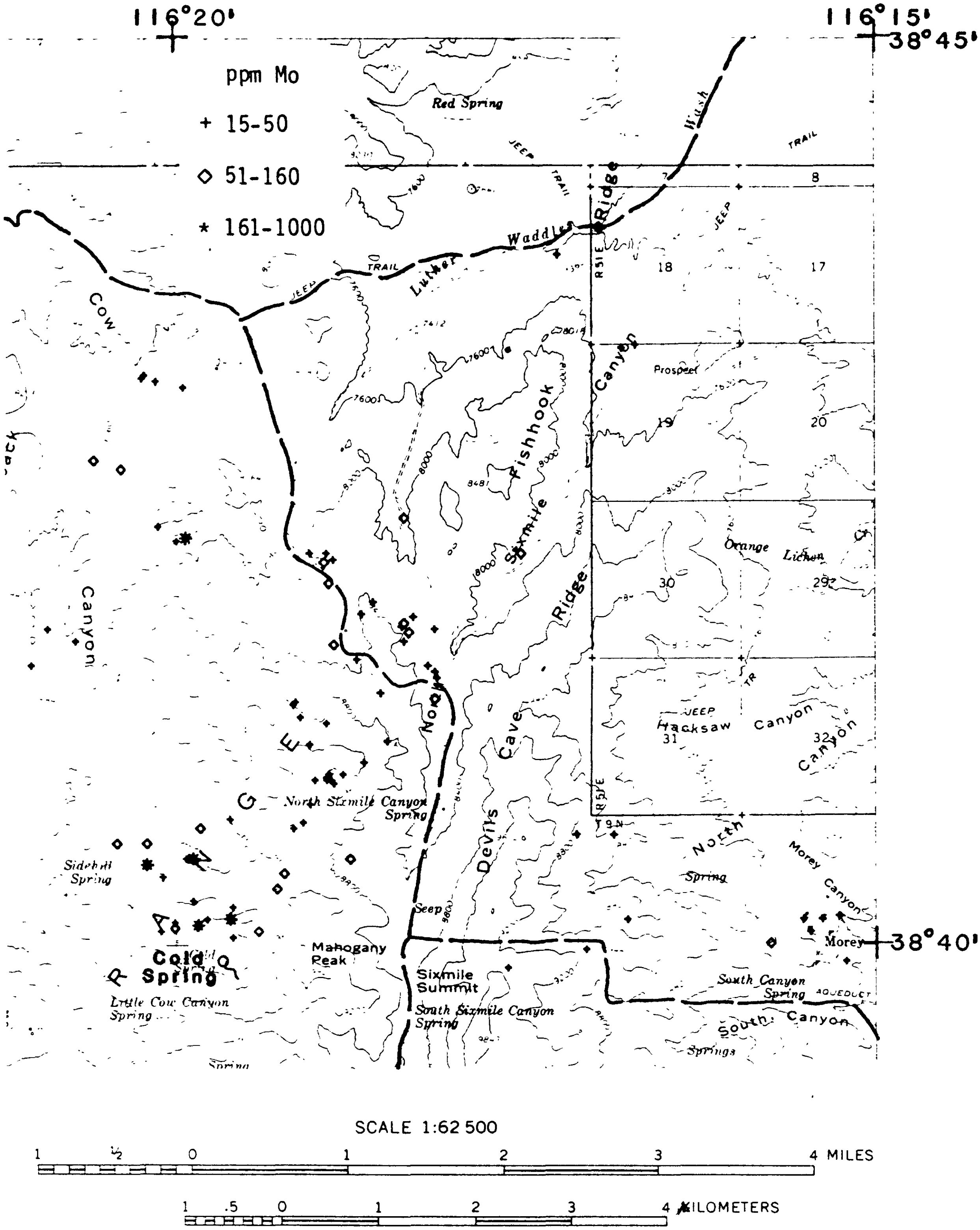


Figure 9.--Distribution of molybdenum in altered rocks in the Cold Spring area.

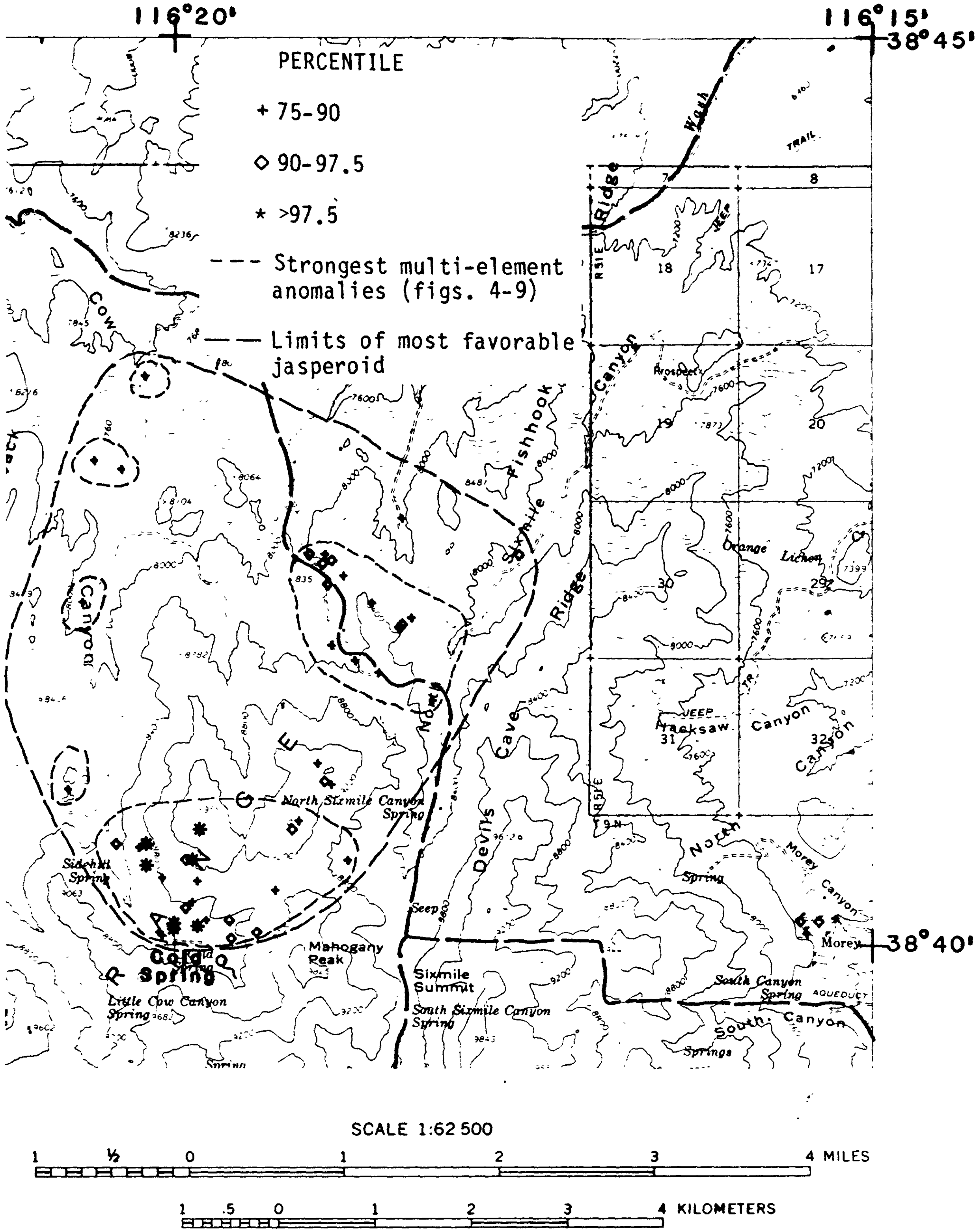


Figure 10.--Distribution of samples with high sample scores for the jasperoid suite of elements (As-Sb-Hg-Tl-Mo).

shales, a likely source of Mo and other metals. However, Mo does not correlate highly with B or V, which might be expected if all came from shale. Also, some Mo-rich samples are far from outcrops of the Woodruff Formation. Some Mo-rich sites are in north-northeast-trending faults that appear to be feeders for the jasperoid alteration. It is possible that some of the molybdenum came from black shales and some came from an igneous source at depth. High molybdenum values seem to be a guide to the most intense alteration, which may be the best guide to gold or other mineral deposits.

The gold content of the Cold Spring jasperoids is generally below 0.1 part per million (ppm), but gold was detected in eight samples with a maximum value of 0.3 ppm. Gold content of outcropping jasperoid in Nevada often is very low, but jasperoids near some gold ore zones contain gold. For example, at Alligator Ridge, near Eureka, Nevada, the discovery jasperoid contained up to 0.45 ppm Au, sufficient to encourage exploration (Klessig, 1984).

Two areas of intense silicification are known between Hot Creek Canyon and the southern part of the Fandango WSA. An area of intensely silicified Paleozoic carbonate rocks in the Bolo claim block between Hot Creek Canyon and Wood Canyon has been explored by several companies over the past 20 years as a sediment-hosted gold prospect. Of the six samples (sites TN1620-1626, table 3) taken of jasperoid, most were enriched in As, Hg, Sb, and Tl, and Au was present in four samples (range 0.1 to 0.5 ppm). Two mi to the northeast is an area of intense silicification in Tertiary welded tuff. Chalcedonic to very fine-grained silica is present in veins and disseminations through the tuff over an area about 100 ft wide and 600 ft long. Three samples of silica-rich veining and alteration (sites TNR1539-1541) contained little of interest chemically other than a small enrichment in arsenic to 15 ppm. The latter alteration zone in tuff is within the Fandango WSA, and possibly is related to the silicification to the south at the Bolo claims if both zones are along a common north-trending fracture system.

## DISCUSSION

The large area of jasperoid north of Cold Spring is as impressive geochemically as it is to the eye. Large amounts of Ca and Mg were removed, and Si-As-Hg-Mo-Sb-Tl were introduced. The alteration character and anomalous geochemical suite is the same as observed at many "Carlin-type" disseminated gold deposits in sedimentary rocks elsewhere in Nevada and Utah (Tooker, 1985). The scale of these enrichments is larger than that reported for discovery outcrops at Carlin-type gold deposits at the Bell mine (Jerritt Canyon) and Alligator Ridge, Nevada. At the Bell deposit, the highest arsenic and antimony values in outcrops were about 200 ppm, and gold ranged to 0.7 ppm (Hawkins, 1984). Mercury was also enriched above the Bell deposit. At Prebble, a Carlin-type gold deposit (Kretschmer, 1984), As, Hg, Ba, Tl, and F are associated with silicification and gold (no values reported). Soils above the Alligator Ridge deposit (Klessig, 1984) contain up to 200 ppm As and Sb, up to 1 ppm Hg, and some samples contained more than 1 ppm Au. Thus, the surface geochemistry of jasperoids near Cold Spring compares favorably with that of several recently discovered gold deposits. Some elements like As and Hg are more enriched than reported from Nevada gold discoveries, although gold appears to be lower. The areas most favorable for Carlin-type gold deposition, based on the distribution of probable pathfinder elements As-Sb-Tl-Hg-Mo, are shown on figure 10.

Considering the magnitude of the enrichments of many elements in jasperoid we were surprised to find that these elements are not enriched in stream-sediment samples collected within the anomalous area shown on figure 10. A detailed discussion of the results given by Saunders and others (1986) for minus-60-mesh stream sediment and nonmagnetic heavy-mineral concentrates from stream sediment is not appropriate here, but we wish to point out that only 1 site out of 12 from drainages with abundant jasperoid contained unusual amounts of metals in either media, thus the large area of geochemically anomalous jasperoid might have been missed by routine stream-sediment sampling. In contrast to the weak signal from the jasperoids, known areas of polymetallic (Ag-Pb-Zn-Cu-Sb) mineralization at Morey and in Hot Creek Canyon produced conspicuous anomalies in both stream sediments and concentrates.

At least three areas (fig. 4) contain a multielement geochemical signature that closely resembles that of the Morey deposits. These zones are along north-trending faults, and the one along Six Mile Canyon is only about 1.5 mi outside of the cauldron that contains Morey. In the Morey camp itself, the intensity of alteration and of the Morey suite of elements appears to weaken west of the Wist vein system on Red Mountain and is present in only a few scattered veins south of South Canyon. Also, dikes emplaced along the caldera margin west of Morey do not appear to be altered and mineralized, thus are not likely sources of additional mineralization. The widespread sericite-pyrite alteration of welded tuff under Red Mountain is not demonstrably related to intrusions; rather it may reflect deuteric alteration within the thick volcanic pile. Anomalous concentrations of Cu, Mo, or Sn in the Morey area appear to be part of the silver-base-metal vein-type mineralization rather than a new type of porphyry-type mineralization.

## REFERENCES


Berger, B. R., and Eimon, P. I., 1983, Conceptual models of epithermal precious-metal deposits, in Shanks, W. C., ed., Cameron Volume on Unconventional Mineral Deposits: New York, American Institute of Mining and Metallurgical and Petroleum Engineers, p. 191-205.

Davis, J. C., 1973, Statistics and data analysis in geology: John Wiley and Sons, New York, 550 p.

Chace, F. M., 1947, Tin-silver veins of Oruro, Bolivia: Economic Geology, v. 43, p. 333-383 and p. 435-470.

Crock, J. G., Lichte, F. E., and Briggs, P. H., 1983, Determination of elements in National Bureau of Standards Geological Reference Materials SRM278 obsidian and SRM688 basalt by inductively coupled argon plasma-emission spectrometry: Geostandards Newsletter, v. 7, p. 335-340.

Ekren, E. B., Hinrichs, E. N., Quinlivan, W. D., and Hoover, D. L, 1973, Geologic map of the Moores Station quadrangle, Nye County, Nevada: U.S. Geological Survey Miscellaneous Investigations Map I-756, scale 1:48,000.

Ekren, E. B., Bath, G. D., Dixon, G. L, Healey, D. L., and Quinlivan, W. D., 1974, Tertiary history of Little Fish Lake Valley, Nye County, Nevada, and implications as to the origin of the Great Basin: U.S. Geological Survey Journal of Research, v. 2, p. 105-118.

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, 6 p.

Hawkins, R. B., 1984, Discovery of the Bell Mine, Jerritt Canyon district, Elko County, Nevada, in Wilkens, Joe, Jr., ed., Gold and Silver Deposits of the Basin and Range Province, Western U.S.A.: Arizona Geological Society Digest, v. 15, p. 53-58.

Hubert, A. E., and Lakin, H. W., 1972, Atomic absorption determination of thallium and indium in geologic materials, in Geochemical Exploration 1972: Association of Exploration Geochemists, p. 383-387.

John, D. A., 1986, Geologic map of the Morey and Fandango Wilderness Study Areas, Nye County, Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-1847, scale 1:62,500 (in press).

Kleinhampl, F. J., and Ziony, J. I., 1984, Mineral Resources of Northern Nye County, Nevada: Nevada Bureau of Mines and Geology, Bulletin 99B, 243 p.

Kleinhampl, F. J., and Ziony, J. I., 1985, Geology of Northern Nye County, Nevada: Nevada Bureau of Mines and Geology, Bulletin 99A, 172 p.

Klessig, P. J., 1984, History and geology of the Alligator Ridge gold mine, White Pine County, Nevada, in Wilkens, Joe, Jr., ed., Gold and Silver Deposits of the Basin and Range Province, Western U.S.A.: Arizona Geological Society Digest, v. 15, p. 77-88.

Koirtyohann, S. R., and Khalil, Moheb, 1976, Variables in the determination of mercury by cold vapor atomic absorption: Analytical Chemistry, v. 48, p. 136-138.

Kretschmer, E. L., 1984, Geology of the Pinson and Prebble gold deposits, Humbolt County, Nevada, in Wilkens, Joe, Jr., ed., Gold and Silver Deposits of the Basin and Range Province, Western U.S.A.: Arizona Geological Society Digest, v. 15, p. 59-66.

Lenzer, R. C., 1972, Geology and wallrock alteration at the Morey mining district, Nye County, Nevada: Unpublished Ph.D. thesis, University of Wisconsin, 123 p.

Meyers, A. T., Haven, R. G., and Dunton, P. S., 1961, A spectrochemical method for the semiquantitative analysis of rocks, minerals, and ores: U.S. Geological Survey Bulletin 1084-I, p. 207-229.

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.

O'Leary, R. M., and Viets, J. G., 1985, Determination of antimony, arsenic, bismuth, cadmium, copper, lead, molybdenum, silver, and zinc in geological materials by atomic absorption spectrometry using a hydrochloric acid-hydrogen peroxide digestion: Atomic Spectroscopy (in press).

Potter, E. C., 1976, Paleozoic stratigraphy of the northern Hot Creek Range, Nye County, Nevada: Corvallis, Oregon, Oregon State University: Unpublished M.S. thesis, 158 p.

Radtke, A. S., Rye, R. O., and Dickson, F. W., 1980, Geology and stable isotope studies of the Carlin gold deposit, Nevada: Economic Geology, v. 75, p. 641-672.

Saunders, J. A., Fairfield, R. F., Jr., and Siems, D. F., 1986, Analytical results and sample locality map for stream-sediment and panned-concentrate samples from the Fandango and Morey Wilderness Study Areas (NV-060-190/191), Nye County, Nevada: U.S. Geological Survey Open-File Report 86-196, 24 p.

Schilling, J. H., 1968, Molybdenum resources of Nevada: Nevada Bureau of Mines and Geology Open-file Report, on file at Nevada Bureau of Mines and Geology, Reno, 195 p.

Sillitoe, R. H., Halls, C., and Grant, N. J., 1975, Porphyry tin deposits in Bolivia: Economic Geology, v. 70, p. 913-927.

Tooker, E. W., 1985, Discussion of the disseminated-gold ore-occurrence model, in Tooker, E. W., ed., Geologic Characteristics of Sediment- and Volcanic-Hosted Disseminated Gold Deposits--Search for an Occurrence Model: U.S. Geological Survey Bulletin 1646, p. 107-150.

Thompson, C. E., Nakagawa, H. M., and Van Sickle, G. H., 1968, Rapid analysis for gold in geological materials: U.S. Geological Survey Professional Paper 600-B, p. B130-B132.

VanTrump, George, Jr., and Miesch, A. T., 1977, The U.S. Geological Survey RASS-STATPAC system for management and reduction of geochemical data: Computers and Geosciences, v. 3, p. 475-488.

Viets, J. G., 1978, Determination of silver, bismuth, cadmium, copper, lead, and zinc in geologic materials by atomic absorption spectrometry with tricaprylmethylammonium chloride: Analytical Chemistry, v. 50, p. 1097-1101.

White, D. E., 1981, Active geothermal systems and hydrothermal ore deposits, in 75th Anniversary Volume, Economic Geology: PUBCO, p. 392-423.

Williams, S. A., 1968, Complex silver ores from Morey, Nevada: Canadian Mineralogist, v. 9, p. 478-484.

**TABLE 1.--Limits of determination for the spectrographic analysis of rocks, based on a 10-mg sample**

[The spectrographic limits of determination for heavy-mineral-concentrate samples are two reporting units higher than the limits given for rocks and stream sediments]

| Elements | Lower determination limit | Upper determination limit |
|---|---|---|
| | Percent | |
| Iron (Fe) | 0.05 | 20 |
| Magnesium (Mg) | .02 | 10 |
| Calcium (Ca) | .05 | 20 |
| Titanium (Ti) | .002 | 1 |
| | Parts per million | |
| Manganese (Mn) | 10 | 5,000 |
| Silver (Ag) | 0.5 | 5,000 |
| Arsenic (As) | 700 | 10,000 |
| Gold (Au) | 15 | 500 |
| Boron (B) | 10 | 2,000 |
| Barium (Ba) | 20 | 5,000 |
| Beryllium (Be) | 1 | 1,000 |
| Bismuth (Bi) | 10 | 1,000 |
| Cadmium (Cd) | 30 | 500 |
| Cobalt (Co) | 5 | 2,000 |
| Chromium (Cr) | 10 | 5,000 |
| Copper (Cu) | 5 | 20,000 |
| Lanthanum (La) | 30 | 1,000 |
| Molybdenum (Mo) | 5 | 2,000 |
| Niobium (Nb) | 20 | 2,000 |
| Nickel (Ni) | 5 | 5,000 |
| Lead (Pb) | 10 | 20,000 |
| Antimony (Sb) | 100 | 10,000 |
| Scandium (Sc) | 5 | 100 |
| Tin (Sn) | 10 | 1,000 |
| Strontium (Sr) | 100 | 5,000 |
| Vanadium (V) | 10 | 10,000 |
| Tungsten (W) | 50 | 10,000 |
| Yttrium (Y) | 10 | 2,000 |
| Zinc (Zn) | 200 | 10,000 |
| Zirconium (Zr) | 10 | 1,000 |
| Thorium (Th) | 200 | 2,000 |

**TABLE 2.--Limits of determination for the chemical analysis of rock samples**

| Element | Analytical method | Determination Limit (ppm)[1] | Reference |
|---|---|---|---|
| Au | Atomic absorption | 0.1 | Modification of Thompson and others, 1968 |
| Hg | | 0.02 | Modification of Koirtyohann and Khalil, 1976 |
| Tl | | 0.02 | Modification of Hubert and Lakin, 1972 |
| As | ICAP-AES[2] | 5 | Modification of O'Leary and Viets, 1985 |
| Bi | | 2 | |
| Cd | | 0.1 | |
| Sb | | 2 | |
| Zn | | 5 | |

[1]The determination limit is dependent upon sample weight. Stated limits imply use of optimum sample weight; higher limits of determination result from use of small sample weights.

[2]ICAP-AES: inductively coupled argon plasma-atomic emission spectroscopy, after Crock and others, 1983.

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA

[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 | B-ppm s | Ba-ppm s | Be-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP31 | 38 35 59 | 116 16 55 | 2.00 | .50 | 1.50 | .200 | 300 | <.5 | <700 | <15 | 10 | 1,500 | 1.0 |
| TJ4MP32 | 38 35 43 | 116 15 48 | 3.00 | 1.50 | 3.00 | .300 | 500 | <.5 | <700 | <15 | <10 | 2,000 | 1.5 |
| TJ4MP40 | 38 43 58 | 116 16 56 | .05 | .15 | >20.00 | .005 | 70 | <.5 | <700 | <15 | <10 | 20 | <1.0 |
| TJ4MP41A | 38 43 48 | 116 17 24 | .10 | .03 | .15 | .030 | 100 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TJ4MP41B | 38 43 48 | 116 17 24 | 1.50 | .07 | .30 | .070 | <10 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TJ4MP41C | 38 43 48 | 116 17 24 | 3.00 | .10 | .15 | .150 | 30 | <.5 | <700 | <15 | 50 | 200 | <1.0 |
| TJ4MP42 | 38 43 52 | 116 17 40 | .15 | .03 | .15 | .030 | 30 | <.5 | <700 | <15 | 70 | 200 | <1.0 |
| TJ4MP43 | 38 42 33 | 116 18 25 | <.05 | 7.00 | 7.00 | .003 | 30 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP44 | 38 42 47 | 116 18 19 | .10 | 7.00 | 7.00 | <.002 | 30 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP45 | 38 42 33 | 116 18 25 | <.05 | 7.00 | 5.00 | <.002 | 30 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP46C | 38 42 21 | 116 18 22 | 3.00 | .15 | .15 | .100 | 30 | <.5 | <700 | <15 | 15 | 3,000 | <1.0 |
| TJ4MP46D | 38 42 21 | 116 18 22 | 1.50 | .15 | .15 | .150 | 50 | <.5 | <700 | <15 | 20 | 300 | 1.5 |
| TJ4MP46E | 38 42 21 | 116 18 22 | 2.00 | .15 | .10 | .150 | 30 | <.5 | <700 | <15 | 30 | 200 | 1.5 |
| TJ4MP47A | 38 41 48 | 116 18 18 | .15 | <.02 | .15 | .005 | 150 | <.5 | <700 | <15 | <10 | 100 | <1.0 |
| TJ4MP47B | 38 41 48 | 116 18 18 | .20 | <.02 | .10 | .015 | 70 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TJ4MP47C | 38 41 48 | 116 18 18 | .20 | .03 | .15 | .007 | 70 | <.5 | <700 | <15 | <10 | 100 | 1.5 |
| TJ4MP48A | 38 41 46 | 116 18 22 | .50 | .02 | .15 | .007 | 70 | <.5 | <700 | <15 | <10 | 150 | 1.5 |
| TJ4MP48B | 38 41 46 | 116 18 22 | .10 | <.02 | <.05 | .003 | 30 | <.5 | <700 | <15 | <10 | 70 | 1.5 |
| TJ4MP48C | 38 41 46 | 116 18 22 | 5.00 | .30 | 1.00 | .030 | 150 | <.5 | 700 | <15 | <10 | 150 | 3.0 |
| TJ4MP49A | 38 40 53 | 116 20 36 | 1.50 | .07 | .10 | .100 | 30 | <.5 | <700 | <15 | 30 | 300 | <1.0 |
| TJ4MP49B | 38 40 53 | 116 20 36 | .70 | <.02 | .07 | .020 | 20 | <.5 | <700 | <15 | 10 | 70 | <1.0 |
| TJ4MP49C | 38 40 53 | 116 20 36 | 3.00 | .07 | .10 | .150 | 30 | <.5 | 700 | <15 | 10 | 150 | <1.0 |
| TJ4MP49D | 38 40 53 | 116 20 36 | .20 | .02 | .07 | .020 | 30 | <.5 | <700 | <15 | 15 | 100 | <1.0 |
| TJ4MP50A | 38 40 56 | 116 20 44 | 2.00 | .10 | .07 | .100 | 30 | <.5 | <700 | <15 | 50 | 300 | 1.5 |
| TJ4MP50B | 38 40 56 | 116 20 44 | 1.50 | .10 | .15 | .100 | 50 | <.5 | <700 | <15 | 50 | 300 | <1.0 |
| TJ4MP55 | 38 40 42 | 116 22 24 | .15 | .07 | .30 | .015 | 150 | <.5 | <700 | <15 | <10 | 3,000 | <1.0 |
| TJ4MP56A | 38 41 22 | 116 21 6 | .70 | .02 | .05 | .200 | 15 | <.5 | <700 | <15 | <10 | 200 | <1.0 |
| TJ4MP56B | 38 41 22 | 116 21 6 | 10.00 | .02 | .10 | .015 | 15 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TJ4MP56C | 38 41 22 | 116 21 6 | 5.00 | .05 | .15 | .500 | <10 | <.5 | <700 | <15 | <10 | 300 | <1.0 |
| TJ4MP57A | 38 41 32 | 116 20 58 | 7.00 | .07 | .15 | .150 | 15 | <.5 | <700 | <15 | 15 | 1,500 | <1.0 |
| TJ4MP57B | 38 41 32 | 116 20 58 | .15 | .15 | .15 | .150 | 30 | <.5 | <700 | <15 | 50 | 200 | <1.0 |
| TJ4MP57C | 38 41 32 | 116 20 58 | 1.50 | 3.00 | 3.00 | .003 | 200 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJ4MP57D | 38 41 32 | 116 20 58 | .50 | .10 | .15 | .070 | 100 | <.5 | <700 | <15 | 30 | 2,000 | <1.0 |
| TJ4MP58 | 38 40 26 | 116 16 34 | .50 | .15 | .20 | .100 | 70 | <.5 | <700 | <15 | 20 | 1,000 | 1.5 |
| TJ4MP60A | 38 40 36 | 116 16 52 | 1.50 | .10 | .10 | .100 | 20 | <.5 | <700 | <15 | 50 | 700 | <1.0 |
| TJ4MP60B | 38 40 36 | 116 16 52 | 1.50 | .02 | .10 | .030 | 15 | <.5 | <700 | <15 | 20 | 700 | <1.0 |
| TJ4MP60C | 38 40 36 | 116 16 52 | 2.00 | .05 | .15 | .030 | 20 | <.5 | <700 | <15 | 20 | 2,000 | <1.0 |
| TJ4MP60D | 38 40 36 | 116 16 52 | .15 | .05 | .10 | .030 | 30 | <.5 | <700 | <15 | 70 | 200 | <1.0 |
| TJ4MP61A | 38 40 36 | 116 17 8 | .30 | .05 | .05 | .050 | 10 | <.5 | <700 | <15 | 20 | 200 | <1.0 |
| TJ4MP61B | 38 40 36 | 116 17 8 | .70 | .05 | .10 | .100 | 10 | <.5 | <700 | <15 | 20 | 300 | <1.0 |
| TJ4MP61C | 38 40 36 | 116 17 8 | >20.00 | .07 | <.05 | .030 | 500 | <.5 | <700 | <15 | <10 | 200 | 3.0 |
| TJ4MP61D | 38 40 36 | 116 17 8 | 1.00 | .05 | .10 | .003 | 150 | <.5 | <700 | <15 | <10 | 50 | 1.0 |
| TJ4MP61E | 38 40 36 | 116 17 8 | >20.00 | .30 | .15 | .010 | 500 | <.5 | <700 | <15 | <10 | 70 | 7.0 |
| TJ4MP64 | 38 39 52 | 116 17 36 | .50 | .10 | .10 | .030 | 50 | <.5 | <700 | <15 | 20 | 300 | 1.5 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | 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 | Sb-ppm s | Sc-ppm s | Sn-ppm s | Sr-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP31 | <10 | <30 | 5 | <10 | 10 | 70 | <5 | <20 | <5 | 20 | <100 | 7 | <10 | 500 |
| TJ4MP32 | <10 | <30 | 15 | <10 | 10 | 50 | <5 | <20 | <5 | 15 | <100 | 7 | <10 | 700 |
| TJ4MP40 | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | 200 |
| TJ4MP41A | <10 | <30 | <5 | 15 | 20 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | 300 |
| TJ4MP41B | <10 | <30 | <5 | 70 | 50 | <30 | <5 | <20 | 30 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP41C | <10 | <30 | 7 | 70 | 100 | <30 | <5 | <20 | 30 | <10 | <100 | 5 | <10 | <100 |
| TJ4MP42 | <10 | <30 | <5 | 30 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP43 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP44 | <10 | <30 | <5 | <10 | 5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP45 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP46C | <10 | <30 | <5 | 30 | 70 | <30 | 70 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP46D | <10 | <30 | <5 | 15 | 30 | <30 | 30 | <20 | <5 | 10 | <100 | <5 | <10 | <100 |
| TJ4MP46E | <10 | <30 | <5 | 15 | 30 | <30 | 15 | <20 | 5 | 10 | <100 | <5 | <10 | <100 |
| TJ4MP47A | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP47B | <10 | <30 | <5 | <10 | 70 | <30 | 15 | <20 | 5 | 10 | <100 | <5 | <10 | <100 |
| TJ4MP47C | <10 | <30 | <5 | <10 | 5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP48A | <10 | <30 | <5 | <10 | 7 | <30 | 15 | <20 | 5 | 10 | 150 | <5 | <10 | <100 |
| TJ4MP48B | <10 | <30 | <5 | <10 | <5 | <30 | 15 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP48C | <10 | <30 | <5 | <10 | 30 | 30 | 150 | <20 | 15 | 10 | 150 | <5 | <10 | <100 |
| TJ4MP49A | <10 | <30 | <5 | 70 | 70 | 30 | <5 | <20 | <5 | 10 | <100 | <5 | <10 | 150 |
| TJ4MP49B | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP49C | <10 | <30 | <5 | 30 | 30 | 70 | <5 | <20 | 10 | 10 | <100 | <5 | <10 | 300 |
| TJ4MP49D | <10 | <30 | <5 | <10 | 5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP50A | <10 | <30 | <5 | 70 | 30 | 30 | <5 | <20 | 5 | 10 | <100 | 5 | <10 | 150 |
| TJ4MP50B | <10 | <30 | <5 | 70 | 20 | 30 | <5 | <20 | <5 | <10 | <100 | 5 | <10 | 150 |
| TJ4MP55 | <10 | <30 | <5 | <10 | <5 | 30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP56A | <10 | <30 | <5 | 70 | 7 | 30 | <5 | <20 | <5 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP56B | <10 | <30 | <5 | 15 | 150 | <30 | <5 | <20 | <5 | 30 | <100 | <5 | <10 | <100 |
| TJ4MP56C | <10 | <30 | <5 | 70 | 50 | 30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP57A | <10 | <30 | <5 | 30 | 30 | <30 | <5 | <20 | <5 | 15 | <100 | <5 | <10 | 150 |
| TJ4MP57B | <10 | <30 | <5 | 20 | 15 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP57C | <10 | <30 | 5 | <10 | 7 | <30 | <5 | <20 | 30 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP57D | <10 | <30 | <5 | 15 | 7 | 30 | 15 | <20 | <5 | 70 | <100 | <5 | <10 | 150 |
| TJ4MP58 | <10 | <30 | <5 | <10 | 5 | 70 | <5 | <20 | <5 | 20 | <100 | 7 | <10 | <100 |
| TJ4MP60A | <10 | <30 | <5 | 30 | 15 | <30 | 10 | <20 | 7 | <10 | <100 | 5 | <10 | 300 |
| TJ4MP60B | <10 | <30 | <5 | 15 | 15 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP60C | <10 | <30 | <5 | 20 | 20 | <30 | 30 | <20 | 7 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP60D | <10 | <30 | <5 | 15 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP61A | <10 | <30 | <5 | 10 | 30 | <30 | 15 | <20 | 10 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP61B | <10 | <30 | <5 | 15 | 30 | <30 | 20 | <20 | 20 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP61C | <10 | <30 | 100 | 15 | 10 | <30 | <5 | <20 | 500 | 500 | <100 | <5 | <10 | <100 |
| TJ4MP61D | <10 | <30 | 20 | <10 | 5 | <30 | <5 | <20 | 300 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP61E | <10 | <30 | 200 | 70 | 7 | <30 | 30 | <20 | 1,000 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP64 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | 5 | 30 | <100 | <5 | <10 | <100 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA

[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 | B-ppm s | Ba-ppm s | Be-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP31 | 38 35 59 | 116 16 55 | 2.00 | .50 | 1.50 | .200 | 300 | <.5 | <700 | <15 | 10 | 1,500 | 1.0 |
| TJ4MP32 | 38 35 43 | 116 15 48 | 3.00 | 1.50 | 3.00 | .300 | 500 | <.5 | <700 | <15 | <10 | 2,000 | 1.5 |
| TJ4MP40 | 38 43 58 | 116 16 56 | .05 | .15 | >20.00 | .005 | 70 | <.5 | <700 | <15 | <10 | 20 | <1.0 |
| TJ4MP41A | 38 43 48 | 116 17 24 | .10 | .03 | .15 | .030 | 100 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TJ4MP41B | 38 43 48 | 116 17 24 | 1.50 | .07 | .30 | .070 | <10 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TJ4MP41C | 38 43 48 | 116 17 24 | 3.00 | .10 | .15 | .150 | 30 | <.5 | <700 | <15 | 50 | 200 | <1.0 |
| TJ4MP42 | 38 43 52 | 116 17 40 | .15 | .03 | .15 | .030 | 30 | <.5 | <700 | <15 | 70 | 200 | <1.0 |
| TJ4MP43 | 38 42 33 | 116 18 25 | <.05 | 7.00 | 7.00 | .003 | 30 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP44 | 38 42 47 | 116 18 19 | .10 | 7.00 | 7.00 | <.002 | 30 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP45 | 38 42 33 | 116 18 25 | <.05 | 7.00 | 5.00 | <.002 | 30 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP46C | 38 42 21 | 116 18 22 | 3.00 | .15 | .15 | .100 | 30 | <.5 | <700 | <15 | 15 | 3,000 | <1.0 |
| TJ4MP46D | 38 42 21 | 116 18 22 | 1.50 | .15 | .15 | .150 | 50 | <.5 | <700 | <15 | 20 | 300 | 1.5 |
| TJ4MP46E | 38 42 21 | 116 18 22 | 2.00 | .15 | .10 | .150 | 30 | <.5 | <700 | <15 | 30 | 200 | 1.5 |
| TJ4MP47A | 38 41 48 | 116 18 18 | .15 | <.02 | .15 | .005 | 150 | <.5 | <700 | <15 | <10 | 100 | <1.0 |
| TJ4MP47B | 38 41 48 | 116 18 18 | .20 | <.02 | .10 | .015 | 70 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TJ4MP47C | 38 41 48 | 116 18 18 | .20 | .03 | .15 | .007 | 70 | <.5 | <700 | <15 | <10 | 100 | 1.5 |
| TJ4MP48A | 38 41 46 | 116 18 22 | .50 | .02 | .15 | .007 | 70 | <.5 | <700 | <15 | <10 | 150 | 1.5 |
| TJ4MP48B | 38 41 46 | 116 18 22 | .10 | <.02 | <.05 | .003 | 30 | <.5 | <700 | <15 | <10 | 70 | 1.5 |
| TJ4MP48C | 38 41 46 | 116 18 22 | 5.00 | .30 | 1.00 | .030 | 150 | <.5 | 700 | <15 | <10 | 150 | 3.0 |
| TJ4MP49A | 38 40 53 | 116 20 36 | 1.50 | .07 | .10 | .100 | 30 | <.5 | <700 | <15 | 30 | 300 | <1.0 |
| TJ4MP49B | 38 40 53 | 116 20 36 | .70 | <.02 | .07 | .020 | 20 | <.5 | <700 | <15 | 10 | 70 | <1.0 |
| TJ4MP49C | 38 40 53 | 116 20 36 | 3.00 | .07 | .10 | .150 | 30 | <.5 | 700 | <15 | 10 | 150 | <1.0 |
| TJ4MP49D | 38 40 53 | 116 20 36 | .20 | .02 | .07 | .020 | 30 | <.5 | <700 | <15 | 15 | 100 | <1.0 |
| TJ4MP50A | 38 40 56 | 116 20 44 | 2.00 | .10 | .07 | .100 | 30 | <.5 | <700 | <15 | 50 | 300 | 1.5 |
| TJ4MP50B | 38 40 56 | 116 20 44 | 1.50 | .10 | .15 | .100 | 50 | <.5 | <700 | <15 | 50 | 300 | <1.0 |
| TJ4MP55 | 38 40 42 | 116 22 24 | .15 | .07 | .30 | .015 | 150 | <.5 | <700 | <15 | <10 | 3,000 | <1.0 |
| TJ4MP56A | 38 41 22 | 116 21 6 | .70 | .02 | .05 | .200 | 15 | <.5 | <700 | <15 | <10 | 200 | <1.0 |
| TJ4MP56B | 38 41 22 | 116 21 6 | 10.00 | .02 | .10 | .015 | 15 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TJ4MP56C | 38 41 22 | 116 21 6 | 5.00 | .05 | .15 | .500 | <10 | <.5 | <700 | <15 | <10 | 300 | <1.0 |
| TJ4MP57A | 38 41 32 | 116 20 58 | 7.00 | .07 | .15 | .150 | 15 | <.5 | <700 | <15 | 15 | 1,500 | <1.0 |
| TJ4MP57B | 38 41 32 | 116 20 58 | .15 | .15 | .15 | .150 | 30 | <.5 | <700 | <15 | 50 | 200 | <1.0 |
| TJ4MP57C | 38 41 32 | 116 20 58 | 1.50 | 3.00 | 3.00 | .003 | 200 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJ4MP57D | 38 41 32 | 116 20 58 | .50 | .10 | .15 | .070 | 100 | <.5 | <700 | <15 | 30 | 2,000 | <1.0 |
| TJ4MP58 | 38 40 26 | 116 16 34 | .50 | .15 | .20 | .100 | 70 | <.5 | <700 | <15 | 20 | 1,000 | 1.5 |
| TJ4MP60A | 38 40 36 | 116 16 52 | 1.50 | .10 | .10 | .100 | 20 | <.5 | <700 | <15 | 50 | 700 | <1.0 |
| TJ4MP60B | 38 40 36 | 116 16 52 | 1.50 | .02 | .10 | .030 | 15 | <.5 | <700 | <15 | 20 | 700 | <1.0 |
| TJ4MP60C | 38 40 36 | 116 16 52 | 2.00 | .05 | .15 | .030 | 20 | <.5 | <700 | <15 | 20 | 2,000 | <1.0 |
| TJ4MP60D | 38 40 36 | 116 16 52 | .15 | .05 | .10 | .030 | 30 | <.5 | <700 | <15 | 70 | 200 | <1.0 |
| TJ4MP61A | 38 40 36 | 116 17 8 | .30 | .05 | .05 | .050 | 10 | <.5 | <700 | <15 | 20 | 200 | <1.0 |
| TJ4MP61B | 38 40 36 | 116 17 8 | .70 | .05 | .10 | .100 | 10 | <.5 | <700 | <15 | 20 | 300 | <1.0 |
| TJ4MP61C | 38 40 36 | 116 17 8 | >20.00 | .07 | <.05 | .030 | 500 | <.5 | <700 | <15 | <10 | 200 | 3.0 |
| TJ4MP61D | 38 40 36 | 116 17 8 | 1.00 | .05 | .10 | .003 | 150 | <.5 | <700 | <15 | <10 | 50 | 1.0 |
| TJ4MP61E | 38 40 36 | 116 17 8 | >20.00 | .30 | .15 | .010 | 500 | <.5 | <700 | <15 | <10 | 70 | 7.0 |
| TJ4MP64 | 38 39 52 | 116 17 36 | .50 | .10 | .10 | .030 | 50 | <.5 | <700 | <15 | 20 | 300 | 1.5 |
| TJ4MP65 | 38 39 28 | 116 17 53 | .70 | .15 | 1.50 | .100 | 500 | <.5 | <700 | <15 | 20 | 300 | 2.0 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | 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 | Sb-ppm s | Sc-ppm s | Sn-ppm s | Sr-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP31 | <10 | <30 | 5 | <10 | 10 | 70 | <5 | <20 | <5 | 20 | <100 | 7 | <10 | 500 |
| TJ4MP32 | <10 | <30 | 15 | <10 | 10 | 50 | <5 | <20 | <5 | 15 | <100 | 7 | <10 | 700 |
| TJ4MP40 | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | 200 |
| TJ4MP41A | <10 | <30 | <5 | 15 | 20 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | 300 |
| TJ4MP41B | <10 | <30 | <5 | 70 | 50 | <30 | <5 | <20 | 30 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP41C | <10 | <30 | 7 | 70 | 100 | <30 | <5 | <20 | 30 | <10 | <100 | 5 | <10 | <100 |
| TJ4MP42 | <10 | <30 | <5 | 30 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP43 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP44 | <10 | <30 | <5 | <10 | 5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP45 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP46C | <10 | <30 | <5 | 30 | 70 | <30 | 70 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP46D | <10 | <30 | <5 | 15 | 30 | <30 | 30 | <20 | <5 | 10 | <100 | <5 | <10 | <100 |
| TJ4MP46E | <10 | <30 | <5 | 15 | 30 | <30 | 15 | <20 | 5 | 10 | <100 | <5 | <10 | <100 |
| TJ4MP47A | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP47B | <10 | <30 | <5 | <10 | 70 | <30 | 15 | <20 | 5 | 10 | <100 | <5 | <10 | <100 |
| TJ4MP47C | <10 | <30 | <5 | <10 | 5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP48A | <10 | <30 | <5 | <10 | 7 | <30 | 15 | <20 | 5 | 10 | 150 | <5 | <10 | <100 |
| TJ4MP48B | <10 | <30 | <5 | <10 | <5 | <30 | 15 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP48C | <10 | <30 | <5 | <10 | 30 | 30 | 150 | <20 | 15 | 10 | 150 | <5 | <10 | <100 |
| TJ4MP49A | <10 | <30 | <5 | 70 | 70 | 30 | <5 | <20 | <5 | 10 | <100 | <5 | <10 | 150 |
| TJ4MP49B | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP49C | <10 | <30 | <5 | 30 | 30 | 70 | <5 | <20 | 10 | 10 | <100 | <5 | <10 | 300 |
| TJ4MP49D | <10 | <30 | <5 | <10 | 5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP50A | <10 | <30 | <5 | 70 | 30 | 30 | <5 | <20 | 5 | 10 | <100 | 5 | <10 | 150 |
| TJ4MP50B | <10 | <30 | <5 | 70 | 20 | 30 | <5 | <20 | <5 | <10 | <100 | 5 | <10 | 150 |
| TJ4MP55 | <10 | <30 | <5 | <10 | <5 | 30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP56A | <10 | <30 | <5 | 70 | 7 | 30 | <5 | <20 | <5 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP56B | <10 | <30 | <5 | 15 | 150 | <30 | <5 | <20 | <5 | 30 | <100 | <5 | <10 | <100 |
| TJ4MP56C | <10 | <30 | <5 | 70 | 50 | 30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP57A | <10 | <30 | <5 | 30 | 30 | <30 | <5 | <20 | <5 | 15 | <100 | <5 | <10 | 150 |
| TJ4MP57B | <10 | <30 | <5 | 20 | 15 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP57C | <10 | <30 | 5 | <10 | 7 | <30 | <5 | <20 | 30 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP57D | <10 | <30 | <5 | 15 | 7 | 30 | 15 | <20 | <5 | 70 | <100 | <5 | <10 | 150 |
| TJ4MP58 | <10 | <30 | <5 | <10 | 5 | 70 | <5 | <20 | <5 | 20 | <100 | 7 | <10 | <100 |
| TJ4MP60A | <10 | <30 | <5 | 30 | 15 | <30 | 10 | <20 | 7 | <10 | <100 | 5 | <10 | 300 |
| TJ4MP60B | <10 | <30 | <5 | 15 | 15 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP60C | <10 | <30 | <5 | 20 | 20 | <30 | 30 | <20 | 7 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP60D | <10 | <30 | <5 | 15 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP61A | <10 | <30 | <5 | 10 | 30 | <30 | 15 | <20 | 10 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP61B | <10 | <30 | <5 | 15 | 30 | <30 | 20 | <20 | 20 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP61C | <10 | <30 | 100 | 15 | 10 | <30 | <5 | <20 | 500 | 500 | <100 | <5 | <10 | <100 |
| TJ4MP61D | <10 | <30 | 20 | <10 | 5 | <30 | <5 | <20 | 300 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP61E | <10 | <30 | 200 | 70 | 7 | <30 | 30 | <20 | 1,000 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP64 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | 5 | 30 | <100 | <5 | <10 | <100 |
| TJ4MP65 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | 50 | <100 | <5 | <10 | 300 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | V-ppm s | W-ppm s | Y-ppm s | Zn-ppm s | Zr-ppm s | Th-ppm s | Au-ppm aa | Hg-ppm inst | As-ppm aa | Zn-ppm aa | Cd-ppm aa | Bi-ppm aa | Sb-ppm aa | Tl-ppm aa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP31 | 50 | <50 | 15 | <200 | 150 | <200 | <.10 | .14 | <5 | 42 | <.1 | <2 | <2 | -- |
| TJ4MP32 | 70 | <50 | 15 | <200 | 150 | <200 | <.10 | .11 | 11 | 99 | .2 | <2 | <2 | -- |
| TJ4MP40 | 15 | <50 | 10 | <200 | <10 | <200 | <.10 | <.02 | 5 | 3 | <.1 | <2 | <2 | -- |
| TJ4MP41A | <10 | <50 | <10 | <200 | 30 | <200 | <.10 | <.02 | <5 | 8 | <.1 | <2 | 7 | -- |
| TJ4MP41B | 70 | <50 | 15 | 300 | 70 | <200 | <.10 | .04 | 107 | 128 | .3 | 2 | 7 | -- |
| TJ4MP41C | 70 | <50 | 15 | 300 | 200 | <200 | <.10 | <.02 | <5 | 174 | <.1 | <2 | 5 | -- |
| TJ4MP42 | 10 | <50 | <10 | <200 | 30 | <200 | <.10 | <.02 | 5 | 4 | <.1 | <2 | 3 | -- |
| TJ4MP43 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .08 | <5 | <2 | <.1 | <2 | 14 | -- |
| TJ4MP44 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .08 | 15 | 9 | .1 | <2 | 17 | -- |
| TJ4MP45 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .18 | 8 | <2 | <.1 | <2 | 19 | -- |
| TJ4MP46C | 150 | <50 | <10 | <200 | 70 | <200 | <.10 | 1.70 | 262 | 13 | 1.2 | <2 | 44 | -- |
| TJ4MP46D | 150 | <50 | <10 | <200 | 30 | <200 | <.10 | 2.10 | 185 | 10 | .4 | <2 | 32 | -- |
| TJ4MP46E | 150 | <50 | <10 | <200 | 70 | <200 | <.10 | 2.50 | 171 | 16 | .3 | <2 | 21 | -- |
| TJ4MP47A | <10 | <50 | 15 | <200 | 30 | <200 | <.10 | 2.50 | 42 | 2 | .1 | <2 | 20 | -- |
| TJ4MP47B | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | 7.50 | 157 | <2 | <.1 | <2 | 34 | -- |
| TJ4MP47C | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | 1.40 | 70 | 3 | .3 | <2 | 22 | -- |
| TJ4MP48A | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | 2.80 | 325 | 17 | .5 | <2 | 77 | -- |
| TJ4MP48B | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | .02 | 23 | <2 | <.1 | <2 | 17 | -- |
| TJ4MP48C | 70 | <50 | 20 | <200 | 30 | <200 | <.10 | 3.70 | 1,140 | 29 | 1.6 | <2 | 113 | -- |
| TJ4MP49A | 70 | <50 | <10 | <200 | 30 | <200 | <.10 | 2.00 | 488 | 13 | .2 | <2 | 32 | -- |
| TJ4MP49B | <10 | <50 | <10 | <200 | 70 | <200 | <.10 | 2.70 | 380 | 15 | .2 | <2 | 40 | -- |
| TJ4MP49C | 50 | <50 | 15 | <200 | 15 | <200 | <.10 | 1.40 | 1,450 | 44 | .6 | <2 | 87 | -- |
| TJ4MP49D | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | 2.90 | 94 | 58 | .4 | <2 | 33 | -- |
| TJ4MP50A | 70 | <50 | 30 | <200 | 70 | <200 | <.10 | 1.40 | 285 | 14 | .3 | <2 | 43 | -- |
| TJ4MP50B | 70 | <50 | 15 | <200 | 70 | <200 | <.10 | .78 | 206 | 4 | .2 | <2 | 31 | -- |
| TJ4MP55 | <10 | <50 | 15 | <200 | 30 | <200 | <.10 | 1.30 | 39 | 41 | .3 | <2 | 8 | -- |
| TJ4MP56A | 70 | <50 | <10 | <200 | 70 | <200 | <.10 | 1.70 | 316 | 5 | .2 | <2 | 11 | -- |
| TJ4MP56B | 70 | <50 | 20 | <200 | 15 | <200 | <.10 | .36 | 640 | 14 | 1.3 | <2 | 16 | -- |
| TJ4MP56C | 150 | <50 | <10 | <200 | 100 | <200 | <.10 | .08 | 831 | 3 | .5 | <2 | 12 | -- |
| TJ4MP57A | 150 | <50 | <10 | <200 | 70 | <200 | <.10 | 3.00 | 241 | 17 | 1.0 | <2 | 38 | -- |
| TJ4MP57B | 30 | <50 | <10 | <200 | 70 | <200 | <.10 | 4.00 | 7 | 3 | .3 | <2 | 3 | -- |
| TJ4MP57C | 15 | <50 | <10 | 3,000 | <10 | <200 | <.10 | 2.50 | 234 | 3,320 | 4.7 | <2 | 35 | -- |
| TJ4MP57D | 150 | <50 | 10 | <200 | 150 | <200 | <.10 | 1.50 | 62 | 6 | .9 | <2 | 16 | -- |
| TJ4MP58 | 10 | <50 | 15 | <200 | 150 | <200 | <.10 | <.02 | 10 | 37 | <.1 | <2 | <2 | -- |
| TJ4MP60A | 300 | <50 | 10 | <200 | 50 | <200 | <.10 | 2.80 | 311 | 2 | .1 | <2 | 3 | -- |
| TJ4MP60B | 70 | <50 | <10 | <200 | 30 | <200 | <.10 | .17 | 327 | 3 | .1 | <2 | 2 | -- |
| TJ4MP60C | 70 | <50 | <10 | <200 | 20 | <200 | <.10 | .89 | 434 | 26 | .1 | <2 | 3 | -- |
| TJ4MP60D | <10 | <50 | <10 | <200 | 30 | <200 | <.10 | .27 | 7 | <2 | <.1 | <2 | <2 | -- |
| TJ4MP61A | 30 | <50 | <10 | <200 | 30 | <200 | <.10 | .30 | 32 | <2 | <.1 | <2 | 6 | -- |
| TJ4MP61B | 150 | <50 | <10 | <200 | 30 | <200 | <.10 | .27 | 53 | 9 | .2 | <2 | 5 | -- |
| TJ4MP61C | 30 | <50 | 100 | 10,000 | <10 | <200 | <.10 | 1.20 | 114 | 6,820 | 6.8 | 9 | 11 | -- |
| TJ4MP61D | <10 | <50 | <10 | 1,000 | <10 | <200 | <.10 | .35 | 162 | 1,510 | 1.2 | 4 | <2 | -- |
| TJ4MP61E | 1,000 | <50 | 50 | 7,000 | 20 | <200 | <.10 | .35 | 294 | 1,980 | <.1 | 5 | <2 | -- |
| TJ4MP64 | 10 | <50 | 15 | <200 | 30 | <200 | <.10 | .10 | 44 | 19 | <.1 | <2 | 4 | -- |
| TJ4MP65 | <10 | <50 | 15 | <200 | 70 | <200 | <.10 | <.02 | <5 | 19 | .1 | <2 | <2 | -- |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--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 | B-ppm s | Ba-ppm s | Be-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP67 | 38 39 56 | 116 16 45 | 1.50 | .15 | .07 | .100 | >10,000 | 5.0 | <700 | <15 | 70 | 300 | 1.5 |
| TJ4MP67A | 38 39 56 | 116 16 45 | 1.50 | .05 | .10 | .100 | >5,000 | 1.0 | <700 | <15 | 50 | 700 | 2.0 |
| TJ4MP68 | 38 39 56 | 116 16 45 | .70 | .15 | .70 | .150 | 300 | <.5 | <700 | <15 | 20 | 500 | 1.5 |
| TJ4MP69A | 38 41 44 | 116 20 53 | .15 | .70 | 1.50 | .003 | 70 | <.5 | <700 | <15 | <10 | 50 | <1.0 |
| TJ4MP69B | 38 41 44 | 116 20 53 | .07 | 7.00 | 5.00 | <.002 | 70 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP69C | 38 41 44 | 116 20 53 | .50 | .10 | .05 | .070 | 300 | <.5 | <700 | <15 | 50 | 500 | <1.0 |
| TJ4MP69D | 38 41 44 | 116 20 53 | 2.00 | 5.00 | 5.00 | .005 | 100 | <.5 | <700 | <15 | <10 | 50 | <1.0 |
| TJ4MP69E | 38 41 44 | 116 20 53 | 7.00 | .30 | .10 | .200 | 15 | <.5 | <700 | <15 | 100 | 300 | <1.0 |
| TJ4MP69E | 38 41 44 | 116 20 53 | .50 | 1.50 | 3.00 | .005 | 70 | <.5 | <700 | <15 | <10 | 70 | <1.0 |
| TJ4MP70A | 38 41 40 | 116 20 40 | 2.00 | .03 | .15 | .030 | 50 | <.5 | <700 | <15 | 10 | 300 | 1.0 |
| TJ4MP70B | 38 41 40 | 116 20 40 | 3.00 | .03 | .30 | .030 | 70 | <.5 | <700 | <15 | 10 | 300 | <1.0 |
| TJ4MP70C | 38 41 40 | 116 20 40 | .50 | .05 | .10 | .050 | 100 | <.5 | <700 | <15 | 20 | 300 | <1.0 |
| TJ4MP71A | 38 42 10 | 116 20 40 | .07 | 1.00 | 1.50 | .003 | 5,000 | <.5 | <700 | <15 | 10 | 2,000 | <1.0 |
| TJ4MP71B | 38 42 10 | 116 20 40 | .07 | .02 | .15 | .005 | 100 | <.5 | <700 | <15 | 10 | 150 | <1.0 |
| TJ4MP71C | 38 42 10 | 116 20 40 | .15 | .07 | .30 | .007 | 30 | <.5 | <700 | <15 | 20 | 150 | <1.0 |
| TJ4MP72 | 38 42 14 | 116 20 39 | .07 | 7.00 | 10.00 | .003 | 100 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP73A | 38 42 16 | 116 20 37 | <.05 | 2.00 | 3.00 | <.002 | 50 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJ4MP73B | 38 42 16 | 116 20 37 | .10 | 3.00 | 3.00 | .002 | 150 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJ4MP74 | 38 42 20 | 116 20 37 | <.05 | 2.00 | 3.00 | <.002 | 50 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP75 | 38 42 20 | 116 20 35 | .07 | .07 | .30 | .007 | 150 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJ4MP76 | 38 42 14 | 116 20 16 | .15 | 7.00 | 7.00 | <.002 | 30 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJ4MP77 | 38 43 36 | 116 20 50 | .07 | .07 | .50 | .003 | 100 | <.5 | <700 | <15 | <10 | 200 | <1.0 |
| TJ4MP78 | 38 43 31 | 116 20 54 | .30 | 7.00 | 7.00 | <.002 | 150 | <.5 | <700 | <15 | <10 | 70 | <1.0 |
| TJ4MP79 | 38 43 28 | 116 21 8 | .30 | .02 | .15 | .030 | 70 | <.5 | <700 | <15 | <10 | 300 | <1.0 |
| TJ4MP80 | 38 43 49 | 116 21 22 | .05 | .20 | 1.50 | .003 | 100 | <.5 | <700 | <15 | 10 | 200 | <1.0 |
| TJ4MP81 | 38 43 52 | 116 21 6 | .10 | .10 | 1.00 | .005 | 150 | <.5 | <700 | <15 | <10 | 200 | <1.0 |
| TJ4MP81A | 38 43 52 | 116 21 6 | .20 | 3.00 | 7.00 | <.002 | 100 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TJ4MP82 | 35 43 53 | 116 21 1 | 7.00 | .30 | 1.50 | <.002 | 70 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TJ4MP85A | 38 42 6 | 116 19 1 | .70 | .05 | .15 | .020 | 30 | <.5 | <700 | <15 | 10 | 300 | <1.0 |
| TJ4MP85B | 38 42 6 | 116 19 1 | .70 | .02 | .15 | .030 | 70 | <.5 | <700 | <15 | 10 | 700 | 1.5 |
| TJ4MP86A | 38 42 4 | 116 19 1 | .15 | 7.00 | 10.00 | .003 | 30 | <.5 | <700 | <15 | <10 | 10 | <1.0 |
| TJ4MP86B | 38 42 4 | 116 19 1 | .10 | .10 | 1.00 | .007 | 30 | <.5 | <700 | <15 | <10 | 200 | <1.0 |
| TJ4MP87 | 38 42 9 | 116 18 50 | .15 | .07 | 1.00 | .030 | 150 | <.5 | <700 | <15 | 15 | 150 | <1.0 |
| TJ4MP88 | 38 42 7 | 116 18 57 | .70 | .07 | .50 | .015 | 30 | <.5 | <700 | <15 | 10 | 150 | 3.0 |
| TJ4MP89 | 38 42 3 | 116 18 50 | .50 | 5.00 | 5.00 | .005 | 200 | <.5 | <700 | <15 | <10 | 50 | <1.0 |
| TJ4MP90 | 38 42 2 | 116 18 51 | 1.50 | <.02 | .20 | .015 | 30 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TJ4MP91 | 38 41 59 | 116 18 59 | 2.00 | .07 | .15 | .030 | 30 | <.5 | 700 | <15 | 20 | 300 | <1.0 |
| TJ4MP92 | 38 41 45 | 116 18 47 | .70 | .07 | .05 | .070 | 30 | <.5 | <700 | <15 | 70 | 200 | <1.0 |
| TJ4MP93 | 38 41 49 | 116 18 45 | .20 | 5.00 | 7.00 | <.002 | 100 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJ4MP93A | 38 41 49 | 116 18 45 | .30 | .07 | .30 | .030 | 70 | <.5 | <700 | <15 | 30 | 150 | <1.0 |
| TJ4MP94A | 38 41 53 | 116 18 40 | .15 | .03 | .20 | <.002 | 15 | <.5 | <700 | <15 | <10 | 70 | <1.0 |
| TJ4MP94B | 38 41 53 | 116 18 40 | 1.50 | .20 | .15 | .100 | 50 | <.5 | <700 | <15 | 70 | 300 | 1.0 |
| TJ4MP94C | 38 41 53 | 116 18 40 | .15 | 7.00 | 5.00 | <.002 | 150 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJ4MP95 | 38 41 45 | 116 18 28 | .15 | <.02 | .05 | .007 | <10 | <.5 | <700 | <15 | <10 | 150 | 1.5 |
| TJ4MP96 | 38 41 40 | 116 18 27 | .15 | .05 | 1.00 | .002 | 70 | <.5 | <700 | <15 | <10 | 100 | <1.0 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | 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 | Sb-ppm s | Sc-ppm s | Sn-ppm s | Sr-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP67 | <10 | <30 | <5 | <10 | <5 | 30 | <5 | <20 | <5 | 700 | <100 | <5 | <10 | 300 |
| TJ4MP67A | <10 | <30 | <5 | <10 | 5 | <30 | 5 | <20 | <5 | 30 | <100 | <5 | 30 | 300 |
| TJ4MP68 | <10 | <30 | <5 | <10 | <5 | 50 | <5 | <20 | <5 | 30 | <100 | <5 | <10 | 300 |
| TJ4MP69A | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP69B | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP69C | <10 | <30 | <5 | 15 | 10 | 70 | <5 | <20 | 20 | <10 | <100 | <5 | <10 | 500 |
| TJ4MP69D | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | 7 | 150 | <100 | <5 | <10 | <100 |
| TJ4MP69E | <10 | <30 | <5 | 70 | 70 | <30 | 30 | <20 | 20 | 30 | <100 | 5 | <10 | 500 |
| TJ4MP69E | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | 7 | 70 | <100 | <5 | <10 | <100 |
| TJ4MP70A | <10 | <30 | 5 | 10 | 50 | <30 | 20 | <20 | 30 | 10 | <100 | <5 | <10 | 150 |
| TJ4MP70B | <10 | <30 | <5 | <10 | 150 | <30 | 30 | <20 | 100 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP70C | <10 | <30 | <5 | 15 | 30 | <30 | <5 | <20 | 7 | 10 | <100 | <5 | <10 | 150 |
| TJ4MP71A | <10 | <30 | 10 | <10 | 10 | <30 | 5 | <20 | 30 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP71B | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP71C | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP72 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP73A | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP73B | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP74 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP75 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP76 | <10 | <30 | <5 | <10 | 5 | <30 | <5 | <20 | 5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP77 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP78 | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | 7 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP79 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP80 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP81 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP81A | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | 5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP82 | <10 | <30 | <5 | <10 | 100 | <30 | 70 | <20 | 20 | 30 | <100 | <5 | <10 | <100 |
| TJ4MP85A | <10 | <30 | <5 | <10 | 15 | 30 | 70 | <20 | 15 | <10 | 150 | <5 | <10 | <100 |
| TJ4MP85B | <10 | <30 | <5 | <10 | <5 | 30 | 15 | <20 | 7 | <10 | 200 | <5 | <10 | <100 |
| TJ4MP85A | <10 | <30 | <5 | 10 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP86B | <10 | <30 | <5 | <10 | <5 | <30 | 10 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP87 | <10 | <30 | <5 | <10 | <5 | 70 | 15 | <20 | <5 | <10 | 700 | <5 | <10 | <100 |
| TJ4MP88 | <10 | <30 | <5 | <10 | 7 | <30 | 30 | <20 | <5 | <10 | 200 | <5 | <10 | <100 |
| TJ4MP89 | <10 | <30 | 15 | 15 | 7 | <30 | 7 | <20 | 20 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP90 | <10 | <30 | <5 | <10 | 5 | <30 | 5 | <20 | 7 | <10 | 150 | <5 | <10 | <100 |
| TJ4MP91 | <10 | <30 | <5 | 15 | 7 | 70 | 50 | <20 | <5 | 30 | 300 | <5 | <10 | 3,000 |
| TJ4MP92 | <10 | <30 | <5 | 15 | 7 | <30 | 10 | <20 | 5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP93 | <10 | <30 | <5 | <10 | <5 | <30 | 30 | <20 | 10 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP93A | <10 | <30 | <5 | <10 | 7 | <30 | 30 | <20 | 5 | 15 | <100 | <5 | <10 | <100 |
| TJ4MP94A | <10 | <30 | <5 | <10 | <5 | <30 | 15 | <20 | 15 | <10 | 300 | <5 | <10 | <100 |
| TJ4MP94B | <10 | <30 | <5 | 20 | 30 | <30 | 15 | <20 | 7 | 15 | 150 | <5 | <10 | <100 |
| TJ4MP94C | <10 | <30 | <5 | <10 | <5 | <30 | 20 | <20 | 30 | 30 | <100 | <5 | <10 | <100 |
| TJ4MP95 | <10 | <30 | <5 | <10 | <5 | <30 | 20 | <20 | <5 | <10 | 200 | <5 | <10 | <100 |
| TJ4MP96 | <10 | <30 | <5 | <10 | <5 | <30 | 15 | <20 | 5 | <10 | <100 | <5 | <10 | <100 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | V-ppm s | W-ppm s | Y-ppm s | Zn-ppm s | Zr-ppm s | Th-ppm s | Au-ppm aa | Hg-ppm inst | As-ppm aa | Zn-ppm aa | Cd-ppm aa | Bi-ppm aa | Sb-ppm aa | Tl-ppm aa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP67 | 15 | <50 | 15 | 700 | 70 | <200 | <.10 | .09 | 164 | 1,030 | 9.3 | <2 | 15 | -- |
| TJ4MP67A | 15 | <50 | 20 | 500 | 70 | <200 | <.10 | .05 | 58 | 375 | 1.1 | 4 | 12 | -- |
| TJ4MP68 | 15 | <50 | 10 | <200 | 70 | <200 | <.10 | .07 | <5 | 19 | .2 | <2 | 4 | -- |
| TJ4MP69A | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .57 | <5 | 27 | .3 | <2 | 5 | -- |
| TJ4MP69B | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .56 | 24 | 24 | .1 | <2 | 15 | -- |
| TJ4MP69C | 100 | <50 | <10 | <200 | 20 | <200 | <.10 | .07 | 88 | 62 | .9 | <2 | 5 | -- |
| TJ4MP69D | 30 | <50 | <10 | 1,500 | 10 | <200 | <.10 | 2.30 | 557 | 1,450 | 1.9 | <2 | 47 | -- |
| TJ4MP69E | 300 | <50 | 10 | <200 | 70 | <200 | <.10 | .04 | 418 | 21 | 2.1 | <2 | 5 | -- |
| TJ4MP69E | 15 | <50 | <10 | 700 | <10 | <200 | <.10 | 7.50 | 84 | 261 | .7 | <2 | 13 | -- |
| TJ4MP70A | 200 | <50 | <10 | 700 | 15 | <200 | .10 | .34 | 238 | 366 | 9.4 | <2 | 14 | -- |
| TJ4MP70B | 300 | <50 | <10 | 1,000 | 20 | <200 | <.10 | .33 | 246 | 400 | 3.5 | <2 | 12 | -- |
| TJ4MP70C | 300 | <50 | <10 | <200 | 20 | <200 | <.10 | .67 | 54 | 15 | .2 | <2 | 5 | -- |
| TJ4MP71A | 15 | <50 | <10 | <200 | 10 | <200 | <.10 | .23 | 10 | 38 | .2 | <2 | 3 | -- |
| TJ4MP71B | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .04 | 9 | 9 | <.1 | <2 | <2 | -- |
| TJ4MP71C | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | .15 | 20 | 32 | .1 | <2 | 2 | -- |
| TJ4MP72 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .10 | 16 | 3 | <.1 | <2 | 16 | -- |
| TJ4MP73A | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .09 | 6 | 21 | <.1 | <2 | 3 | -- |
| TJ4MP73B | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .17 | 11 | 7 | <.1 | <2 | 4 | -- |
| TJ4MP74 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .05 | <5 | <2 | <.1 | <2 | 4 | -- |
| TJ4MP75 | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | .06 | <5 | 6 | <.1 | <2 | <2 | -- |
| TJ4MP76 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .57 | 91 | 80 | .1 | <2 | 12 | -- |
| TJ4MP77 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .15 | <5 | 9 | .2 | <2 | <2 | -- |
| TJ4MP78 | 15 | <50 | <10 | <200 | 15 | <200 | <.10 | .22 | 15 | 52 | .7 | <2 | 17 | -- |
| TJ4MP79 | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | <.02 | <5 | <2 | .1 | <2 | 3 | -- |
| TJ4MP80 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .02 | <5 | 2 | .2 | <2 | <2 | -- |
| TJ4MP81 | 10 | <50 | <10 | <200 | 15 | <200 | <.10 | <.02 | <5 | 10 | <.1 | <2 | 4 | -- |
| TJ4MP81A | 10 | <50 | <10 | <200 | <10 | <200 | <.10 | .15 | 13 | 6 | .3 | 17 | 9 | -- |
| TJ4MP82 | 100 | <50 | <10 | <200 | <10 | <200 | <.10 | .53 | 228 | 43 | 2.8 | <2 | 12 | -- |
| TJ4MP85A | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | 2.30 | 318 | 19 | .2 | 4 | 83 | -- |
| TJ4MP85B | <10 | <50 | <10 | <200 | 30 | <200 | <.10 | 10.00 | 374 | 21 | .3 | <2 | 58 | -- |
| TJ4MP86A | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .80 | 55 | <2 | .2 | <2 | 21 | -- |
| TJ4MP86B | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | 2.20 | 12 | 3 | .1 | <2 | 10 | -- |
| TJ4MP87 | <10 | <50 | 10 | <200 | 50 | <200 | <.10 | 28.00 | 17 | 3 | .2 | <2 | 51 | -- |
| TJ4MP88 | 20 | <50 | <10 | <200 | 20 | <200 | <.10 | 10.00 | 535 | 31 | .7 | <2 | 60 | -- |
| TJ4MP89 | 15 | <50 | 10 | 1,000 | <10 | <200 | <.10 | 1.70 | 71 | 625 | .9 | <2 | 17 | -- |
| TJ4MP90 | <10 | <50 | 30 | <200 | 15 | <200 | <.10 | 3.90 | 193 | 34 | .2 | <2 | 37 | -- |
| TJ4MP91 | 15 | <50 | 15 | <200 | 30 | <200 | <.10 | 9.20 | 1,090 | 6 | .3 | <2 | 95 | -- |
| TJ4MP92 | 30 | <50 | <10 | <200 | 30 | <200 | <.10 | .27 | 72 | 3 | .3 | <2 | 20 | -- |
| TJ4MP93 | 15 | <50 | <10 | <200 | <10 | <200 | <.10 | .66 | 104 | 59 | .4 | <2 | 33 | -- |
| TJ4MP93A | <10 | <50 | <10 | <200 | 50 | <200 | <.10 | .24 | 19 | 13 | .2 | <2 | 12 | -- |
| TJ4MP94A | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | 1.40 | 90 | 37 | .6 | <2 | 18 | -- |
| TJ4MP94B | 70 | <50 | 10 | <200 | 100 | <200 | <.10 | .87 | 103 | 17 | .5 | <2 | 48 | -- |
| TJ4MP94C | 15 | <50 | <10 | 1,000 | <10 | <200 | <.10 | <.08 | 82 | 1,570 | 13.2 | <2 | 49 | -- |
| TJ4MP95 | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | 14.00 | 83 | <2 | .2 | <2 | 56 | -- |
| TJ4MP96 | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | .61 | 20 | 10 | .1 | <2 | 18 | -- |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--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 | B-ppm s | Ba-ppm s | Be-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP97 | 38 41 34 | 116 18 47 | 3.00 | .07 | .15 | .070 | 30 | <.5 | <700 | <15 | 20 | 150 | <1.0 |
| TJ4MP97A | 38 41 34 | 116 18 47 | 3.00 | .07 | .50 | <.002 | 30 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TJ4MP98 | 38 41 43 | 116 18 43 | 2.00 | .20 | .15 | .150 | 15 | <.5 | <700 | <15 | 70 | 500 | <1.0 |
| TJ4MP99 | 38 41 30 | 116 18 37 | 7.00 | .20 | .10 | .150 | 15 | <.5 | <700 | <15 | 50 | 500 | <1.0 |
| TJMP100A | 38 41 25 | 116 18 25 | .15 | .03 | .07 | .030 | 30 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TJMP100B | 38 41 25 | 116 18 25 | 2.00 | .07 | .07 | .070 | 15 | <.5 | <700 | <15 | 50 | 200 | <1.0 |
| TJMP101 | 38 41 6 | 116 18 27 | 3.00 | 1.50 | 2.00 | .003 | 300 | .7 | <700 | <15 | <10 | <20 | <1.0 |
| TJMP102 | 38 41 0 | 116 18 44 | 1.50 | .30 | .10 | .150 | 70 | <.5 | <700 | <15 | 70 | 200 | 1.0 |
| TJMP102A | 38 41 0 | 116 18 44 | .70 | .15 | .15 | .150 | 50 | <.5 | <700 | <15 | 70 | 300 | 1.5 |
| TJ4MP103 | 38 40 56 | 116 18 53 | 1.50 | .15 | <.05 | .150 | 15 | .5 | <700 | <15 | 50 | 300 | <1.0 |
| TJMP104A | 38 40 54 | 116 19 7 | .30 | .03 | .15 | .020 | 70 | <.5 | <700 | <15 | 15 | 150 | 1.0 |
| TJMP104B | 38 40 54 | 116 19 0 | 1.00 | .05 | .50 | .150 | 20 | 1.5 | <700 | <15 | 15 | 300 | <1.0 |
| TJMP104C | 38 40 54 | 116 19 0 | .15 | 3.00 | 3.00 | .003 | 150 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJMP105 | 38 40 46 | 116 19 7 | .30 | 1.50 | 2.00 | <.002 | 150 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJMP106 | 38 41 0 | 116 19 3 | 5.00 | .07 | .20 | .030 | 30 | <.5 | <700 | <15 | 30 | 150 | <1.0 |
| TJ4MP107 | 38 41 6 | 116 19 7 | .70 | .30 | .50 | .150 | 50 | <.5 | <700 | <15 | 50 | 300 | <1.0 |
| TJMP108A | 38 41 15 | 116 19 11 | 1.50 | .07 | .07 | .050 | 70 | <.5 | <700 | <15 | 30 | 150 | <1.0 |
| TJMP108B | 38 41 15 | 116 19 11 | .70 | .10 | .15 | .070 | 15 | <.5 | <700 | <15 | 30 | 150 | <1.0 |
| TJMP108C | 38 41 15 | 116 19 11 | .10 | 3.00 | 3.00 | <.002 | 70 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJMP109 | 38 41 13 | 116 19 0 | .70 | .05 | .15 | .030 | 30 | <.5 | <700 | <15 | 30 | 200 | <1.0 |
| TJ4MP110 | 38 41 6 | 116 18 35 | .70 | 7.00 | 10.00 | <.002 | 150 | <.5 | <700 | <15 | <10 | 7 | <1.0 |
| TJMP111A | 38 41 31 | 116 18 5 | 15.00 | .07 | .15 | .150 | 50 | <.5 | <700 | <15 | <10 | 300 | <1.0 |
| TJMP111B | 38 41 31 | 116 18 5 | 7.00 | .20 | .15 | .150 | 50 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TJMP112 | 38 41 21 | 116 18 12 | 10.00 | .20 | .20 | .150 | 150 | <.5 | <700 | <15 | 50 | 300 | 1.5 |
| TJMP113A | 38 41 28 | 116 18 11 | 2.00 | .15 | 3.00 | .070 | 15 | 1.0 | <700 | <15 | 50 | 200 | 2.0 |
| TJMP113B | 38 41 28 | 116 18 11 | <.05 | 7.00 | 7.00 | <.002 | 100 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TJMP114A | 38 40 28 | 116 18 50 | 7.00 | .07 | .30 | .100 | 100 | <.5 | 1,000 | <15 | <10 | 500 | <1.0 |
| TJMP114B | 38 40 28 | 116 18 50 | 7.00 | .15 | 1.00 | .100 | 50 | <.5 | 2,000 | <15 | <10 | 300 | <1.0 |
| TJMP115 | 38 40 30 | 116 18 55 | .70 | 7.00 | 10.00 | <.002 | 150 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJMP116 | 38 40 23 | 116 19 18 | 2.00 | .15 | .15 | .070 | 150 | <.5 | <700 | <15 | 70 | 700 | <1.0 |
| TJMP117A | 38 40 17 | 116 19 16 | .10 | .10 | .20 | <.002 | 30 | <.5 | <700 | <15 | <10 | 100 | <1.0 |
| TJMP117B | 38 40 17 | 116 19 16 | .15 | 7.00 | 7.00 | <.002 | 70 | <.5 | <700 | <15 | <10 | 10 | <1.0 |
| TJ4MP118 | 38 40 18 | 116 19 21 | 2.00 | .30 | .15 | .150 | 70 | <.5 | <700 | <15 | 70 | 300 | 2.0 |
| TJMP118A | 38 40 18 | 116 19 21 | 7.00 | .15 | .10 | .150 | 15 | <.5 | <700 | <15 | 50 | 300 | <1.0 |
| TJMP119 | 38 40 6 | 116 19 30 | .15 | 7.00 | 15.00 | <.002 | 100 | <.5 | <700 | <15 | <10 | 7 | <1.0 |
| TJMP120 | 38 40 4 | 116 19 29 | >20.00 | .15 | .20 | .300 | 150 | 5.0 | 3,000 | <15 | -- | 300 | <1.0 |
| TJMP121 | 38 40 2 | 116 19 40 | 3.00 | .15 | 2.00 | .030 | 200 | 5.0 | 700 | <15 | 20 | 300 | 10.0 |
| TJMP122 | 38 40 8 | 116 19 41 | 7.00 | .15 | 1.50 | .150 | 30 | <.5 | 1,500 | <15 | 20 | 300 | 3.0 |
| TJMP123 | 38 40 12 | 116 19 40 | 3.00 | .15 | .15 | .150 | 30 | <.5 | <700 | <15 | 50 | 300 | <1.0 |
| TJMP124 | 38 40 20 | 116 19 29 | 2.00 | .10 | .30 | .150 | 100 | <.5 | <700 | <15 | 50 | 500 | <1.0 |
| TJ4MP125 | 38 40 30 | 116 19 40 | .07 | 1.50 | 3.00 | <.002 | 70 | <.5 | <700 | <15 | 10 | 100 | <1.0 |
| TJMP126 | 38 40 41 | 116 19 41 | 7.00 | .20 | .50 | .150 | 15 | <.5 | <700 | <15 | 50 | 300 | <1.0 |
| TJMP127 | 38 40 36 | 116 19 30 | .10 | .03 | .10 | .030 | 50 | <.5 | <700 | <15 | 20 | 200 | <1.0 |
| TJMP128 | 38 40 38 | 116 19 14 | 3.00 | .15 | 1.50 | .015 | 70 | 2.0 | 1,000 | <15 | 15 | 300 | <1.0 |
| TJMP129 | 38 40 41 | 116 19 11 | .30 | .02 | .50 | .010 | 20 | 2.0 | <700 | <15 | <10 | 150 | <1.0 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | 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 | Sb-ppm s | Sc-ppm s | Sn-ppm s | Sr-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP97 | <10 | <30 | <5 | 15 | 30 | <30 | 7 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP97A | <10 | <30 | <5 | <10 | 15 | <30 | 15 | <20 | 50 | <10 | 150 | <5 | <10 | <100 |
| TJ4MP98 | <10 | <30 | <5 | 30 | 100 | <30 | 70 | <20 | 10 | 10 | <100 | 5 | <10 | 300 |
| TJ4MP99 | <10 | <30 | <5 | 150 | 300 | <30 | 10 | <20 | 7 | 15 | 200 | <5 | <10 | 300 |
| TJMP100A | <10 | <30 | <5 | <10 | 7 | <30 | 5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP100B | <10 | <30 | <5 | 15 | 30 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP101 | <10 | 300 | <5 | <10 | 7 | <30 | <5 | <20 | 20 | 3,000 | <100 | <5 | <10 | <100 |
| TJMP102 | <10 | <30 | <5 | 50 | 20 | 30 | 20 | <20 | 10 | 15 | <100 | <5 | <10 | <100 |
| TJMP102A | <10 | <30 | <5 | 30 | 70 | 30 | 10 | <20 | 20 | 15 | 150 | <5 | <10 | 100 |
| TJ4MP103 | <10 | <30 | <5 | 20 | 30 | <30 | 20 | <20 | 7 | 10 | <100 | <5 | <10 | 150 |
| TJMP104A | <10 | <30 | <5 | <10 | 7 | <30 | 20 | <20 | 20 | <10 | 700 | <5 | <10 | <100 |
| TJMP104B | <10 | <30 | <5 | 30 | 30 | 30 | 15 | <20 | 7 | 15 | 150 | <5 | <10 | 150 |
| TJMP104C | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | 7 | <10 | <100 | <5 | <10 | <100 |
| TJMP105 | <10 | <30 | <5 | <10 | <5 | <30 | 15 | <20 | 15 | 15 | <100 | <5 | <10 | <100 |
| TJMP106 | <10 | <30 | <5 | 20 | 30 | <30 | 7 | <20 | <5 | <10 | 150 | <5 | <10 | 100 |
| TJ4MP107 | <10 | <30 | <5 | 20 | 20 | <30 | 15 | <20 | 5 | <10 | <100 | <5 | <10 | <100 |
| TJMP108A | <10 | <30 | <5 | 10 | 7 | <30 | 7 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP108B | <10 | <30 | <5 | 15 | 15 | <30 | 15 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP108C | <10 | <30 | <5 | <10 | <5 | <30 | 7 | <20 | 15 | 15 | <100 | <5 | <10 | <100 |
| TJMP109 | <10 | <30 | <5 | <10 | 10 | <30 | 15 | <20 | 7 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP110 | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | 150 | <100 | <5 | <10 | <100 |
| TJMP111A | <10 | <30 | 7 | 50 | 50 | <30 | <5 | <20 | 30 | 10 | <100 | 7 | <10 | <100 |
| TJMP111B | <10 | <30 | <5 | 50 | 70 | 50 | <5 | <20 | 7 | <10 | <100 | 5 | <10 | 300 |
| TJMP112 | <10 | <30 | 15 | 50 | 30 | <30 | 70 | <20 | 50 | 20 | 200 | 5 | <10 | 200 |
| TJMP113A | <10 | <30 | <5 | 30 | 30 | 70 | 20 | <20 | 10 | 100 | <100 | 5 | <10 | 300 |
| TJMP113B | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | 20 | <10 | <100 | <5 | <10 | <100 |
| TJMP114A | 500 | <30 | <5 | <10 | 7 | 50 | 50 | <20 | <5 | 50 | 200 | 7 | 70 | 150 |
| TJMP114B | 500 | <30 | <5 | <10 | 20 | 50 | 70 | <20 | <5 | 150 | 200 | 7 | 200 | 500 |
| TJMP115 | <10 | <30 | <5 | <10 | <5 | <30 | 7 | <20 | 5 | <10 | <100 | <5 | <10 | <100 |
| TJMP116 | <10 | <30 | <5 | 15 | 15 | <30 | 70 | <20 | <5 | 15 | <100 | <5 | <10 | 150 |
| TJMP117A | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP117B | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJ4MP118 | <10 | <30 | <5 | 20 | 30 | <30 | 100 | <20 | 5 | 10 | <100 | <5 | <10 | 100 |
| TJMP118A | <10 | <30 | <5 | 30 | 70 | <30 | 30 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP119 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP120 | <10 | <30 | <5 | 150 | 50 | <30 | 150 | <20 | 30 | 30 | 200 | 7 | <20 | <100 |
| TJMP121 | <10 | <30 | <5 | 7 | 10 | <30 | 30 | <20 | 30 | 10 | 300 | <5 | <10 | 150 |
| TJMP122 | <10 | <30 | <5 | 150 | 10 | 150 | 200 | <20 | <5 | 50 | 150 | 5 | <10 | 1,000 |
| TJMP123 | <10 | <30 | <5 | 30 | 50 | 30 | 15 | <20 | 10 | <10 | <100 | <5 | <10 | 200 |
| TJMP124 | <10 | <30 | <5 | 15 | 15 | <30 | 10 | <20 | <5 | <10 | <100 | <5 | <10 | 100 |
| TJ4MP125 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP126 | <10 | <30 | <5 | 30 | 70 | <30 | 20 | <20 | 30 | 15 | <100 | <5 | <10 | 100 |
| TJMP127 | <10 | <30 | <5 | <10 | <5 | 50 | 10 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP128 | <10 | <30 | <5 | <10 | 30 | <30 | 15 | <20 | 30 | <10 | 500 | <5 | <10 | <100 |
| TJMP129 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | 7 | <10 | 100 | <5 | <10 | <100 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | V-ppm s | W-ppm s | Y-ppm s | Zn-ppm s | Zr-ppm s | Th-ppm s | Au-ppm aa | Hg-ppm inst | As-ppm aa | Zn-ppm aa | Cd-ppm aa | Bi-ppm aa | Sb-ppm aa | Tl-ppm aa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJ4MP97 | 300 | <50 | <10 | <200 | 30 | <200 | <.10 | .39 | 219 | 7 | .4 | <2 | 32 | -- |
| TJ4MP97A | 15 | <50 | <10 | 700 | 15 | <200 | <.10 | .51 | 276 | 492 | 3.5 | <2 | 51 | -- |
| TJ4MP98 | 70 | <50 | <10 | <200 | 50 | <200 | <.10 | 1.70 | 168 | 17 | 1.4 | <2 | 41 | -- |
| TJ4MP99 | 200 | <50 | 10 | <200 | 100 | <200 | <.10 | 3.70 | 521 | 5 | .9 | <2 | 124 | -- |
| TJMP100A | 30 | <50 | <10 | <200 | 30 | <200 | <.10 | .11 | 18 | 4 | .1 | <2 | 8 | -- |
| TJMP100B | 70 | <50 | <10 | <200 | 30 | <200 | <.10 | .51 | 183 | 7 | .4 | <2 | 30 | -- |
| TJMP101 | <10 | <50 | <10 | >10,000 | <10 | <200 | <.10 | .25 | 156 | >40,000 | 261.0 | <2 | <2 | -- |
| TJMP102 | 300 | <50 | 10 | <200 | 70 | <200 | <.10 | 2.30 | 161 | 75 | 1.5 | <2 | 50 | -- |
| TJMP102A | 300 | <50 | 15 | 700 | 150 | <200 | <.10 | .40 | 125 | 500 | 8.0 | <2 | 56 | -- |
| TJ4MP103 | 70 | <50 | <10 | <200 | 100 | <200 | <.10 | 1.80 | 177 | 8 | .2 | <2 | 42 | -- |
| TJMP104A | <10 | <50 | <10 | 300 | 20 | <200 | .30 | 4.20 | 350 | 120 | 1.6 | <2 | 247 | -- |
| TJMP104B | 50 | <50 | 20 | <200 | 50 | <200 | <.10 | 3.40 | 285 | 34 | .4 | <2 | 58 | -- |
| TJMP104C | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .60 | 62 | 42 | .2 | <2 | 31 | -- |
| TJMP105 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | 1.20 | 189 | 70 | .2 | <2 | 35 | -- |
| TJMP106 | 150 | <50 | <10 | <200 | 30 | <200 | <.10 | 3.60 | 323 | 39 | 1.2 | <2 | 102 | -- |
| TJ4MP107 | 50 | <50 | <10 | <200 | 50 | <200 | <.10 | 3.90 | 46 | <2 | .2 | <2 | 36 | -- |
| TJMP108A | 15 | <50 | <10 | <200 | 30 | <200 | <.10 | .67 | 93 | 9 | .2 | <2 | 17 | -- |
| TJMP108B | 15 | <50 | <10 | <200 | 30 | <200 | <.10 | 1.50 | 118 | 13 | .3 | <2 | 17 | -- |
| TJMP108C | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | 1.00 | 29 | 30 | .6 | <2 | 17 | -- |
| TJMP109 | 100 | <50 | <10 | <200 | 30 | <200 | <.10 | 1.10 | 225 | 10 | .4 | <2 | 27 | -- |
| TJ4MP110 | <10 | <50 | <10 | 3,000 | <10 | <200 | <.10 | 1.30 | 65 | 3,340 | 3.8 | <2 | 29 | -- |
| TJMP111A | 700 | <50 | <10 | <200 | 70 | <200 | <.10 | .42 | 340 | 64 | 1.0 | <2 | 24 | -- |
| TJMP111B | 700 | <50 | 10 | <200 | 70 | <200 | <.10 | 1.10 | 80 | 5 | <.1 | <2 | 29 | -- |
| TJMP112 | 1,500 | <50 | 15 | 500 | 70 | <200 | <.10 | 5.60 | 504 | 242 | 24.3 | <2 | 101 | -- |
| TJMP113A | 100 | <50 | 100 | <200 | 30 | <200 | <.10 | 17.00 | 171 | 76 | 2.7 | <2 | 36 | -- |
| TJMP113B | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .51 | 11 | 285 | 5.8 | <2 | 17 | -- |
| TJMP114A | 50 | <50 | 15 | <200 | 150 | <200 | <.10 | 3.00 | 1,640 | 13 | .5 | 347 | 74 | -- |
| TJMP114B | 50 | <50 | 10 | <200 | 70 | <200 | <.10 | 8.30 | 2,720 | 32 | 1.0 | 234 | 71 | -- |
| TJMP115 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | 1.20 | 439 | <2 | .3 | <2 | 48 | -- |
| TJMP116 | 70 | <50 | 15 | <200 | 70 | <200 | <.10 | 2.70 | 398 | 31 | .4 | <2 | 39 | -- |
| TJMP117A | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .34 | 24 | 4 | <.1 | <2 | 7 | -- |
| TJMP117B | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .11 | 117 | <2 | .2 | <2 | 37 | -- |
| TJ4MP118 | 70 | <50 | <10 | <200 | 30 | <200 | <.10 | 2.20 | 478 | 31 | 1.1 | <2 | 49 | -- |
| TJMP118A | 70 | <50 | <10 | <200 | 30 | <200 | <.10 | 2.20 | 260 | 4 | <.1 | <2 | 37 | -- |
| TJMP119 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .79 | 66 | <2 | <.1 | <2 | 22 | -- |
| TJMP120 | 70 | <50 | 20 | 500 | 100 | <200 | <.10 | 17.00 | 2,440 | 216 | 1.4 | 5 | 100 | -- |
| TJMP121 | 15 | <50 | 15 | <200 | 30 | <200 | <.10 | 5.30 | 529 | 58 | .5 | <2 | 96 | -- |
| TJMP122 | 70 | <50 | 15 | <200 | 30 | <200 | <.10 | 13.00 | 1,910 | 10 | .5 | <2 | 71 | -- |
| TJMP123 | 70 | <50 | 15 | <200 | 70 | <200 | <.10 | 5.00 | 390 | 7 | .4 | <2 | 34 | -- |
| TJMP124 | 70 | <50 | 10 | <200 | 70 | <200 | <.10 | 1.70 | 221 | 6 | .1 | <2 | 44 | -- |
| TJ4MP125 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | .88 | 126 | <2 | .2 | <2 | 16 | -- |
| TJMP126 | 150 | <50 | 10 | <200 | 100 | <200 | <.10 | 2.40 | 133 | 9 | .9 | <2 | 46 | -- |
| TJMP127 | <10 | <50 | <10 | <200 | 30 | <200 | <.10 | 1.60 | 10 | <2 | <.1 | <2 | 7 | -- |
| TJMP128 | 70 | <50 | 15 | <200 | 15 | <200 | <.10 | 2.50 | 748 | 43 | .5 | 3 | 155 | -- |
| TJMP129 | <10 | <50 | <10 | <200 | <10 | <200 | .30 | 3.00 | 184 | 3 | .5 | <2 | 33 | -- |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--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 | B-ppm s | Ba-ppm s | Be-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJMP130 | 38 40 40 | 116 19 10 | 3.00 | .05 | .10 | .100 | 50 | <.5 | <700 | <15 | 10 | 200 | <1.0 |
| TJMP130A | 38 40 40 | 116 19 10 | .70 | 10.00 | 15.00 | .015 | 300 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TJMP131 | 38 40 33 | 116 19 7 | .70 | .15 | .30 | .150 | 70 | 1.5 | <700 | <15 | 30 | 700 | <1.0 |
| TJMP132B | 38 40 6 | 116 19 55 | 3.00 | .07 | .15 | .150 | 30 | <.5 | 700 | <15 | 30 | 200 | 1.5 |
| TJMP139A | 38 40 28 | 116 20 0 | 1.00 | .03 | .10 | .050 | 30 | 1.5 | <700 | <15 | 30 | 300 | 1.5 |
| TJMP141 | 38 40 2 | 116 20 2 | .70 | .05 | .30 | .030 | 20 | <.5 | <700 | <15 | 15 | 300 | <1.0 |
| TJMP143B | 38 40 26 | 116 20 17 | .30 | .07 | .70 | .030 | 100 | <.5 | <700 | <15 | 20 | 200 | <1.0 |
| TJMP144B | 38 40 33 | 116 20 30 | 3.00 | .07 | .15 | .070 | 30 | <.5 | 1,500 | <15 | <10 | 300 | 1.5 |
| TJMP146A | 38 42 37 | 116 20 28 | 1.50 | .15 | .70 | .150 | 30 | <.5 | <700 | <15 | 70 | 5,000 | <1.0 |
| TJMP147A | 38 42 40 | 116 20 40 | 20.00 | 3.00 | 3.00 | .005 | 300 | <.5 | 1,500 | <15 | <20 | 200 | <1.0 |
| TJMP150A | 38 42 2 | 116 19 43 | 5.00 | .07 | .30 | .150 | 30 | .5 | <700 | <15 | 70 | 500 | <1.0 |
| TJMP150B | 38 42 2 | 116 19 43 | 3.00 | .15 | .15 | .150 | 50 | <.5 | <700 | <15 | 70 | 500 | <1.0 |
| TJMP151 | 38 42 7 | 116 19 40 | 1.50 | .10 | .30 | .150 | 300 | <.5 | <700 | <15 | 70 | 500 | <1.0 |
| TJMP152 | 38 42 10 | 116 19 30 | .50 | .07 | .15 | .150 | 15 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TJMP153 | 38 42 0 | 116 19 48 | 3.00 | .15 | .15 | .150 | 30 | <.5 | 700 | <15 | 70 | 300 | 1.5 |
| TJMP154 | 38 41 40 | 116 13 40 | 1.50 | .02 | .10 | .030 | 70 | <.5 | 1,500 | <15 | 15 | 150 | <1.0 |
| TJMP155A | 38 42 16 | 116 20 0 | 7.00 | .30 | .15 | .200 | 20 | <.5 | 700 | <15 | 70 | 300 | <1.0 |
| TJMP155B | 38 42 16 | 116 20 0 | 3.00 | .15 | .07 | .150 | 15 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TJMP155C | 38 42 16 | 116 20 0 | .70 | .20 | .07 | .150 | 30 | <.5 | <700 | <15 | 70 | 700 | <1.0 |
| TJMP156 | 38 42 15 | 116 20 2 | 1.50 | .15 | .20 | .150 | 20 | <.5 | <700 | <15 | 70 | 1,500 | <1.0 |
| TJMP157 | 38 42 23 | 116 20 21 | 5.00 | .07 | .15 | .150 | 30 | <.5 | <700 | <15 | 70 | 3,000 | <1.0 |
| TJMP158 | 38 39 54 | 116 16 45 | 3.00 | .05 | .15 | .070 | >10,000 | 2.0 | 700 | <15 | 100 | 700 | 1.5 |
| TNDO1550 | 38 40 8 | 116 15 23 | 10.00 | .20 | .07 | .100 | 5,000 | 15.0 | >10,000 | N | 30 | 100 | 1.5 |
| TNDO1551 | 38 40 8 | 116 15 23 | 20.00 | .05 | <.05 | .015 | >5,000 | 100.0 | >10,000 | 15 | N | 70 | 1.0 |
| TNDO1552 | 38 40 4 | 116 15 28 | 1.50 | .10 | 1.50 | .010 | 5,000 | 2,000.0 | >10,000 | N | N | <20 | <1.0 |
| TNDO1576 | 38 40 8 | 116 16 46 | 10.00 | .30 | .05 | .050 | >5,000 | 700.0 | 2,000 | N | 150 | 500 | 3.0 |
| TNDO1616 | 38 31 42 | 116 20 7 | 1.50 | .15 | 5.00 | .070 | 300 | 7.0 | <700 | <15 | 15 | 150 | 3.0 |
| TNDO1615 | 38 31 42 | 116 22 34 | .30 | 1.00 | 1.50 | .015 | 300 | 5,000.0 | 1,500 | <15 | <10 | 150 | <1.0 |
| TNHO1529 | 38 41 44 | 116 18 9 | 1.00 | 2.00 | 3.00 | .100 | 200 | <.5 | <700 | <15 | 50 | 300 | 1.0 |
| TNHO1530 | 38 41 45 | 116 18 8 | 1.00 | 2.00 | 2.00 | .150 | 300 | 1.0 | <700 | <15 | 70 | 300 | 1.0 |
| TNHO1620 | 38 32 28 | 116 21 58 | 1.00 | 1.50 | 15.00 | .150 | 150 | <.5 | <700 | <15 | 15 | 200 | <1.0 |
| TNHO1624 | 38 32 21 | 116 22 3 | .30 | .30 | 20.00 | .070 | 200 | <.5 | <700 | <15 | 10 | 500 | <1.0 |
| TNRO1501 | 38 43 57 | 116 16 58 | .20 | .15 | >20.00 | .020 | 150 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TNRO1502 | 38 43 48 | 116 17 16 | 3.00 | 3.00 | 5.00 | .100 | 150 | <.5 | <700 | <15 | 20 | 1,000 | <1.0 |
| TNRO1503 | 38 43 4 | 116 18 48 | .70 | .10 | .50 | .030 | 30 | <.5 | <700 | <15 | 50 | 500 | <1.0 |
| TNRO1505 | 38 43 7 | 116 20 14 | 1.50 | 7.00 | 7.00 | <.002 | 100 | <.5 | <700 | <15 | <10 | 200 | <1.0 |
| TNRO1506 | 38 43 8 | 116 20 14 | 3.00 | .15 | .20 | .100 | 15 | <.5 | <700 | <15 | 20 | 1,000 | <1.0 |
| TNRO1507 | 38 43 8 | 116 20 13 | >20.00 | .20 | .15 | .020 | 30 | <.5 | 1,000 | <15 | <10 | 1,000 | 2.0 |
| TNRO1508 | 38 43 9 | 116 20 12 | .15 | 7.00 | 10.00 | <.002 | 30 | <.5 | <700 | <15 | <10 | >5,000 | <1.0 |
| TNRO1509 | 38 43 4 | 116 19 56 | 7.00 | .20 | 1.00 | .070 | <10 | <.5 | <700 | <15 | <10 | >5,000 | <1.0 |
| TNRO1510 | 38 43 4 | 116 19 56 | 5.00 | .15 | .15 | .100 | <10 | <.5 | <700 | <15 | <10 | >5,000 | <1.0 |
| TNRO1511 | 38 43 8 | 116 20 0 | 3.00 | .15 | .15 | .100 | 30 | <.5 | 700 | <15 | 70 | >5,000 | <1.0 |
| TNRO1516 | 38 42 4 | 116 19 51 | 1.00 | .15 | .15 | .150 | 30 | <.5 | <700 | <15 | 50 | 700 | <1.0 |
| TNRO1517 | 38 42 16 | 116 19 28 | 1.50 | .10 | .20 | .100 | 50 | <.5 | <700 | <15 | 50 | 500 | 1.0 |
| TNRO1519 | 38 40 6 | 116 20 1 | .10 | 5.00 | 7.00 | <.002 | 70 | <.5 | <700 | <15 | <10 | 30 | <1.0 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | 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 | Sb-ppm s | Sc-ppm s | Sn-ppm s | Sr-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJMP130 | <10 | <30 | <5 | 10 | 10 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP130A | <10 | <30 | 7 | <10 | 7 | <30 | 15 | <20 | 30 | <10 | <100 | <5 | <10 | <100 |
| TJMP131 | <10 | <30 | <5 | 15 | 15 | <30 | 7 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP132B | <10 | <30 | 5 | 30 | 15 | 70 | 200 | <20 | 15 | 15 | 300 | <5 | <10 | <100 |
| TJMP139A | <10 | <30 | <5 | <10 | 10 | 70 | 15 | <20 | 7 | <10 | 300 | <5 | <10 | <100 |
| TJMP141 | <10 | <30 | <5 | <10 | <5 | <30 | 5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP143B | <10 | <30 | <5 | <10 | 7 | <30 | 5 | <20 | 10 | <10 | <100 | <5 | <10 | <100 |
| TJMP144B | <10 | <30 | <5 | 15 | 10 | 30 | 50 | <20 | <5 | 10 | 500 | <5 | <10 | 100 |
| TJMP146A | <10 | <30 | <5 | 30 | 7 | <30 | 15 | <20 | <5 | 150 | <100 | <5 | <10 | 500 |
| TJMP147A | <10 | <30 | 50 | 30 | 50 | <30 | 50 | <20 | 1,500 | 70 | <100 | <5 | <20 | <100 |
| TJMP150A | <10 | <30 | <5 | 150 | 20 | <30 | <5 | <20 | 5 | <10 | <100 | 7 | <10 | 300 |
| TJMP150B | <10 | <30 | <5 | 100 | 50 | <30 | <5 | <20 | 7 | <10 | <100 | 7 | <10 | 150 |
| TJMP151 | <10 | <30 | <5 | 100 | 20 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | 100 |
| TJMP152 | <10 | <30 | <5 | 70 | 15 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | 200 |
| TJMP153 | <10 | <30 | <5 | 100 | 50 | <30 | <5 | <20 | <5 | <10 | 300 | 7 | <10 | 200 |
| TJMP154 | <10 | <30 | 5 | <10 | 20 | <30 | 15 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TJMP155A | <10 | <30 | <5 | 300 | 100 | <30 | 500 | <20 | 20 | 15 | <100 | 7 | <10 | 1,000 |
| TJMP155B | <10 | <30 | <5 | 150 | 100 | <30 | 70 | <20 | 5 | <10 | <100 | <5 | <10 | 500 |
| TJMP155C | <10 | <30 | <5 | 100 | 7 | <30 | 30 | <20 | <5 | <10 | <100 | <5 | <10 | 500 |
| TJMP156 | <10 | <30 | <5 | 50 | 15 | 70 | 30 | <20 | <5 | 20 | <100 | <5 | <10 | 700 |
| TJMP157 | <10 | <30 | <5 | 70 | 30 | 30 | <5 | <20 | 15 | 150 | <100 | <5 | <10 | 300 |
| TJMP158 | <10 | 150 | <5 | <10 | 7 | <30 | 7 | <20 | <5 | 150 | <100 | <5 | <10 | 1,000 |
| TND01550 | N | N | 5 | <10 | 20 | 20 | 20 | N | <5 | 1,000 | 500 | 5 | 150 | N |
| TND01551 | N | 500 | N | <10 | 700 | <20 | 30 | N | <5 | 10,000 | 2,000 | <5 | 500 | N |
| TND01552 | N | >500 | N | <10 | 1,500 | <20 | 15 | N | <5 | >20,000 | 5,000 | <5 | >1,000 | 200 |
| TND01576 | N | 200 | N | <10 | 300 | 20 | 20 | N | <5 | 15,000 | 700 | 5 | 100 | 700 |
| TND01616 | <10 | <30 | <5 | 15 | 15 | <30 | <5 | <20 | 7 | <10 | 150 | <5 | <10 | 100 |
| TND01615 | <10 | <30 | <5 | <10 | 7,000 | <30 | 10 | <20 | <5 | 300 | 3,000 | <5 | <10 | <100 |
| TNH01529 | <10 | <30 | 5 | 100 | 70 | <30 | 15 | <20 | 70 | 15 | <100 | 5 | <10 | 200 |
| TNH01530 | <10 | <30 | 7 | 100 | 50 | <30 | 10 | <20 | 50 | 10 | <100 | 7 | <10 | 150 |
| TNH01620 | <10 | <30 | 5 | 30 | 7 | <30 | <5 | <20 | 15 | 10 | <100 | 7 | <10 | 300 |
| TNH01624 | <10 | <30 | <5 | 15 | 7 | <30 | <5 | <20 | 7 | <10 | <100 | <5 | <10 | 300 |
| TNR01501 | <10 | <30 | 20 | 70 | <5 | <30 | 150 | <20 | 50 | <10 | <100 | <5 | <10 | 300 |
| TNR01502 | <10 | <30 | 5 | 50 | 50 | <30 | 15 | <20 | 15 | 10 | <100 | 5 | <10 | 300 |
| TNR01503 | <10 | <30 | <5 | 70 | 7 | <30 | 10 | <20 | 5 | 10 | <100 | <5 | <10 | <100 |
| TNR01505 | <10 | <30 | <5 | 10 | 20 | <30 | 15 | <20 | 15 | <10 | <100 | <5 | <10 | <100 |
| TNR01506 | <10 | <30 | <5 | 30 | 70 | <30 | 7 | <20 | 20 | 500 | <100 | <5 | <10 | 150 |
| TNR01507 | <10 | <30 | 5 | 150 | 200 | 30 | 30 | <20 | 150 | 50 | <100 | <5 | <10 | 150 |
| TNR01508 | <10 | <30 | <5 | 20 | <5 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TNR01509 | <10 | <30 | 5 | 150 | 70 | 100 | 30 | <20 | 50 | 10 | <100 | <5 | <10 | >5,000 |
| TNR01510 | <10 | <30 | <5 | 150 | 15 | 50 | 10 | <20 | 30 | <10 | <100 | <5 | <10 | >5,000 |
| TNR01511 | <10 | <30 | 10 | 100 | 15 | <30 | <5 | <20 | 15 | <10 | <100 | <5 | <10 | 2,000 |
| TNR01516 | <10 | <30 | <5 | 100 | 15 | <30 | <5 | <20 | <5 | 15 | <100 | <5 | <10 | 200 |
| TNR01517 | <10 | <30 | <5 | 70 | 30 | <30 | <5 | <20 | <5 | <10 | 100 | 5 | <10 | 150 |
| TNR01519 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | 5 | <10 | <100 | <5 | <10 | <100 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | V-ppm s | W-ppm s | Y-ppm s | Zn-ppm s | Zr-ppm s | Th-ppm s | Au-ppm aa | Hg-ppm inst | As-ppm aa | Zn-ppm aa | Cd-ppm aa | Bi-ppm aa | Sb-ppm aa | Tl-ppm aa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJMP130 | 50 | <50 | <10 | <200 | 50 | <200 | <.10 | 1.20 | 49 | 7 | .1 | <2 | 39 | -- |
| TJMP130A | 30 | <50 | <10 | <200 | 15 | <200 | <.10 | 1.00 | 54 | 40 | 1.4 | <2 | 40 | -- |
| TJMP131 | 30 | <50 | <10 | <200 | 50 | <200 | <.10 | .51 | 27 | 3 | <.1 | <2 | 15 | -- |
| TJMP132B | 70 | <50 | 15 | <200 | 50 | <200 | <.10 | 17.00 | 1,190 | 21 | .6 | <2 | 212 | -- |
| TJMP139A | 20 | <50 | 15 | <200 | 30 | <200 | <.10 | 3.00 | 343 | 25 | .4 | <2 | 92 | -- |
| TJMP141 | <10 | <50 | <10 | <200 | 30 | <200 | <.10 | 2.30 | 216 | <2 | <.1 | <2 | 46 | -- |
| TJMP143B | <10 | <50 | 15 | <200 | 30 | <200 | <.10 | 3.20 | 110 | 8 | .2 | <2 | 32 | -- |
| TJMP144B | 30 | <50 | <10 | <200 | 30 | <200 | <.10 | 21.00 | 2,570 | 48 | .7 | <2 | 278 | -- |
| TJMP146A | 30 | <50 | <10 | <200 | 100 | <200 | <.10 | .72 | 61 | 8 | .3 | <2 | 12 | -- |
| TJMP147A | 700 | <50 | <10 | 700 | 30 | <200 | <.10 | 18.00 | 1,380 | 381 | 8.0 | 3 | 57 | -- |
| TJMP150A | 70 | <50 | 15 | <200 | 150 | <200 | <.10 | .05 | 58 | <2 | <.1 | <2 | 9 | -- |
| TJMP150B | 150 | <50 | 15 | <200 | 150 | <200 | <.10 | 1.50 | 155 | 3 | <.1 | <2 | 24 | -- |
| TJMP151 | 50 | <50 | 15 | <200 | 150 | <200 | <.10 | .12 | 77 | 4 | .3 | <2 | 33 | -- |
| TJMP152 | 30 | <50 | 15 | <200 | 150 | <200 | <.10 | -- | 26 | 2 | <.1 | <2 | 11 | -- |
| TJMP153 | 150 | <50 | 15 | <200 | 100 | <200 | <.10 | 1.10 | 484 | 5 | <.1 | <2 | 79 | -- |
| TJMP154 | 20 | <50 | <10 | <200 | 30 | <200 | <.10 | 3.10 | 723 | 6 | <.1 | 3 | 50 | -- |
| TJMP155A | 700 | <50 | 30 | <200 | 150 | <200 | <.10 | 1.50 | 688 | 11 | .5 | <2 | 41 | -- |
| TJMP155B | 200 | <50 | 15 | <200 | 70 | <200 | <.10 | .50 | 262 | 3 | <.1 | <2 | 16 | -- |
| TJMP155C | 150 | <50 | 15 | <200 | 100 | <200 | <.10 | 1.40 | 65 | <2 | <.1 | <2 | 6 | -- |
| TJMP156 | 300 | <50 | 15 | <200 | 150 | <200 | <.10 | .84 | 152 | 17 | .4 | <2 | 12 | -- |
| TJMP157 | 150 | <50 | 10 | <200 | 300 | <200 | <.10 | .45 | 320 | 114 | .6 | <2 | 19 | -- |
| TJMP158 | 15 | <50 | 15 | 7,000 | 70 | <200 | .10 | .21 | 726 | 8,030 | 90.7 | 8 | 23 | -- |
| TND01550 | 20 | N | 10 | 1,500 | 70 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND01551 | 10 | N | <10 | >10,000 | N | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND01552 | 10 | N | N | >10,000 | N | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND01576 | 30 | N | 20 | 7,000 | 50 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND01616 | 30 | 100 | 10 | <200 | 30 | <200 | <.10 | .07 | 265 | 35 | .3 | <2 | 111 | 5.300 |
| TND01615 | 15 | <50 | <10 | 500 | 15 | <200 | .20 | 1.90 | 1,670 | 186 | 6.2 | <2 | 1,310 | 1.800 |
| TNH01529 | 700 | <50 | 10 | 700 | 50 | <200 | <.10 | .07 | 36 | 599 | 8.7 | <2 | 19 | -- |
| TNH01530 | 500 | <50 | 10 | 500 | 50 | <200 | <.10 | .07 | 27 | 478 | 8.1 | <2 | 12 | -- |
| TNH01620 | 100 | <50 | 10 | <200 | 70 | <200 | <.10 | .11 | 69 | 53 | .4 | <2 | 23 | 1.200 |
| TNH01624 | 30 | <50 | 15 | <200 | 70 | <200 | .10 | .34 | 36 | 26 | .2 | <2 | 11 | .840 |
| TNR01501 | 30 | <50 | 20 | <200 | 10 | <200 | <.10 | .03 | 10 | 8 | .4 | 4 | <2 | -- |
| TNR01502 | 100 | <50 | <10 | <200 | 30 | <200 | <.10 | .09 | 86 | 11 | 1.3 | <2 | 13 | -- |
| TNR01503 | 50 | <50 | <10 | <200 | 30 | <200 | <.10 | .09 | 71 | 3 | .3 | <2 | <2 | -- |
| TNR01505 | 70 | <50 | <10 | 500 | <10 | <200 | <.10 | .66 | 107 | 313 | 1.2 | <2 | 15 | -- |
| TNR01506 | 30 | <50 | <10 | 200 | 150 | <200 | <.10 | .19 | 322 | 73 | .7 | <2 | 19 | -- |
| TNR01507 | 700 | <50 | 20 | 10,000 | 15 | <200 | <.10 | 1.00 | 1,350 | 3,430 | 12.4 | 2 | 34 | -- |
| TNR01508 | 10 | <50 | <10 | <200 | <10 | <200 | <.10 | .80 | <5 | 10 | .4 | <2 | 11 | -- |
| TNR01509 | 150 | <50 | 10 | <200 | 50 | <200 | <.10 | 6.90 | 451 | 120 | 1.6 | <2 | 7 | -- |
| TNR01510 | 300 | <50 | <10 | <200 | 30 | <200 | <.10 | .75 | 194 | 67 | 1.1 | <2 | 4 | -- |
| TNR01511 | 150 | <50 | <10 | <200 | 30 | <200 | <.10 | 2.00 | 1,220 | 53 | 3.4 | <2 | 12 | -- |
| TNR01516 | 70 | <50 | 10 | <200 | 70 | <200 | <.10 | .54 | 76 | 4 | .3 | <2 | 14 | -- |
| TNR01517 | 50 | <50 | <10 | <200 | 100 | <200 | <.10 | 1.60 | 184 | 4 | .3 | <2 | 50 | -- |
| TNR01519 | <10 | <50 | <10 | <200 | <10 | <200 | <.10 | 1.90 | 88 | <2 | .4 | <2 | 26 | -- |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--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 | B-ppm s | Ba-ppm s | Be-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNR01520 | 38 40 6 | 116 20 1 | .30 | .05 | .15 | .003 | 50 | <.5 | <700 | <15 | <10 | 200 | <1.0 |
| TNR01521 | 38 40 8 | 116 19 46 | 7.00 | .05 | .05 | .070 | 30 | <.5 | <700 | <15 | <10 | 200 | 1.0 |
| TNR01522 | 38 43 6 | 116 20 8 | 3.00 | .10 | .20 | .100 | 15 | <.5 | <700 | <15 | 30 | 1,500 | <1.0 |
| TNR01523 | 38 43 6 | 116 20 8 | 5.00 | .15 | .30 | .070 | 15 | .5 | <700 | <15 | 30 | 1,500 | <1.0 |
| TNR01524 | 38 43 6 | 116 20 8 | 1.50 | 7.00 | 7.00 | .002 | 100 | <.5 | <700 | <15 | <10 | 500 | <1.0 |
| TNR01525 | 38 43 2 | 116 19 57 | .30 | 7.00 | 7.00 | <.002 | 70 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TNR01526 | 38 42 58 | 116 18 58 | .70 | .10 | .50 | .050 | 200 | .5 | <700 | <15 | 50 | 700 | <1.0 |
| TNR01527 | 38 43 3 | 116 18 13 | .20 | .70 | >20.00 | .020 | 150 | <.5 | <700 | <15 | <10 | 700 | <1.0 |
| TNR01528 | 38 43 27 | 116 16 34 | 3.00 | .20 | .20 | .150 | 30 | <.5 | <700 | <15 | 50 | 500 | <1.0 |
| TNR01539 | 38 34 8 | 116 20 49 | .20 | .05 | .15 | .015 | 50 | <.5 | <700 | <15 | <10 | 200 | 1.5 |
| TNR01540 | 38 34 8 | 116 20 48 | .30 | .05 | .05 | .020 | 50 | <.5 | <700 | <15 | <10 | 200 | 1.5 |
| TNR01541 | 38 34 7 | 116 20 51 | .30 | .07 | .05 | .020 | 30 | <.5 | <700 | <15 | <10 | 200 | 1.5 |
| TNR01545 | 38 40 0 | 116 15 45 | 1.00 | .10 | .05 | .070 | 200 | 7.0 | N | N | 70 | 200 | 5.0 |
| TNR01546 | 38 40 3 | 116 15 42 | 10.00 | .10 | <.05 | .050 | 100 | 7.0 | 3,000 | N | 100 | 200 | 7.0 |
| TNR01547 | 38 40 3 | 116 15 42 | 1.50 | .50 | <.05 | .070 | 100 | 10.0 | 200 | N | 50 | 150 | 3.0 |
| TNR01549 | 38 39 28 | 116 15 34 | 10.00 | 1.50 | .10 | .300 | 1,000 | 10.0 | 5,000 | N | 50 | 700 | 5.0 |
| TNR01553 | 38 43 17 | 116 16 48 | 7.00 | .30 | .15 | .150 | 70 | .7 | <700 | <15 | 70 | 500 | 1.0 |
| TNR01554 | 38 43 18 | 116 16 42 | 10.00 | .15 | .15 | .070 | 30 | .7 | <700 | <15 | 50 | 300 | 3.0 |
| TNR01555 | 38 42 9 | 116 17 32 | 10.00 | .07 | .20 | .030 | 1,500 | <.5 | 1,500 | <15 | 15 | 150 | 3.0 |
| TNR01556 | 38 42 10 | 116 17 34 | 3.00 | .15 | 1.50 | .030 | 150 | 1.5 | <700 | <15 | 20 | 200 | <1.0 |
| TNR01557 | 38 41 32 | 116 18 12 | 3.00 | .15 | .70 | .070 | 50 | 1.5 | <700 | <15 | 30 | 300 | 1.5 |
| TNR01558 | 38 41 30 | 116 18 9 | 7.00 | .15 | .30 | .070 | 150 | 1.5 | <700 | <15 | 30 | 300 | 1.5 |
| TNR01560 | 38 41 42 | 116 18 36 | 7.00 | .15 | .15 | .150 | 50 | <.5 | <700 | <15 | 70 | 500 | 1.0 |
| TNR01561 | 38 41 23 | 116 18 32 | 7.00 | .30 | .15 | .150 | 70 | <.5 | <700 | <15 | 70 | 300 | 1.5 |
| TNR01562 | 38 41 7 | 116 18 29 | 15.00 | .15 | .15 | .030 | 70 | <.5 | <700 | <15 | 70 | 30 | <1.0 |
| TNR01563 | 38 41 7 | 116 18 29 | 15.00 | 3.00 | 3.00 | .020 | 200 | 2.0 | <700 | <15 | <20 | <20 | <1.0 |
| TNR01564 | 38 41 7 | 116 18 29 | .30 | 7.00 | 10.00 | .030 | 100 | <.5 | <700 | <15 | <10 | 20 | <1.0 |
| TNR01565 | 38 40 56 | 116 18 54 | .70 | .15 | .15 | .070 | 15 | <.5 | <700 | <15 | 30 | 300 | <1.0 |
| TNR01566 | 38 40 55 | 116 18 55 | .70 | .07 | .30 | .050 | 70 | <.5 | <700 | <15 | 30 | 300 | <1.0 |
| TNR01567 | 38 40 54 | 116 19 0 | .70 | .15 | .30 | .150 | 70 | <.5 | <700 | <15 | 50 | 500 | <1.0 |
| TNR01568 | 38 40 54 | 116 18 53 | 1.50 | .15 | .15 | .150 | 15 | .7 | <700 | <15 | 70 | 300 | <1.0 |
| TNR01569 | 38 40 53 | 116 18 52 | 1.50 | .15 | .10 | .100 | 15 | .5 | <700 | <15 | 50 | 300 | <1.0 |
| TNR01570 | 38 41 39 | 116 18 52 | 7.00 | .30 | .15 | .150 | 70 | <.5 | 700 | <15 | 70 | 300 | <1.0 |
| TNR01571 | 38 41 18 | 116 19 8 | 3.00 | .30 | .15 | .150 | 30 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TNR01572 | 38 41 19 | 116 19 9 | 3.00 | .15 | .15 | .150 | 70 | <.5 | <700 | <15 | 70 | 300 | 1.5 |
| TNR01573 | 38 41 20 | 116 19 8 | 1.00 | .30 | .15 | .150 | 70 | <.5 | <700 | <15 | 70 | 300 | 1.0 |
| TNR01575 | 38 42 9 | 116 19 2 | 1.50 | .07 | .50 | .070 | 100 | <.5 | <700 | <15 | 30 | 300 | 1.5 |
| TNR01577 | 38 40 6 | 116 16 26 | 3.00 | .30 | <.05 | .070 | 3,000 | 150.0 | 10,000 | N | 100 | 150 | 5.0 |
| TNR01578 | 38 39 58 | 116 17 4 | 3.00 | .50 | .05 | .150 | >5,000 | 100.0 | 1,000 | N | 200 | 200 | 3.0 |
| TNR01579 | 38 39 52 | 116 17 38 | 5.00 | .30 | .05 | .050 | 500 | 1.0 | 1,500 | N | 150 | 300 | 7.0 |
| TNR01580 | 38 39 53 | 116 17 32 | 1.00 | .30 | .05 | .050 | 700 | 1.5 | N | N | 150 | 200 | 5.0 |
| TNR01581 | 38 39 54 | 116 17 21 | 1.00 | .15 | .05 | .050 | 500 | N | N | N | 100 | 200 | 5.0 |
| TNR01590 | 38 43 54 | 116 17 25 | 1.50 | .07 | .30 | .030 | 150 | <.5 | <700 | <1 | 70 | 1,000 | <1.0 |
| TNR01591 | 38 43 57 | 116 17 22 | .30 | .05 | .20 | .030 | 15 | <.5 | <700 | <15 | 70 | 300 | <1.0 |
| TNR01592 | 38 43 0 | 116 19 18 | .50 | .03 | .10 | .100 | 15 | <.5 | <700 | <15 | 70 | 3,000 | <1.0 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | 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 | Sb-ppm s | Sc-ppm s | Sn-ppm s | Sr-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNR01520 | <10 | <30 | <5 | <10 | 5 | <30 | 10 | <20 | 7 | <10 | 100 | <5 | <10 | <100 |
| TNR01521 | <10 | <30 | <5 | 15 | 10 | <30 | 30 | <20 | <5 | 15 | <100 | <5 | <10 | 150 |
| TNR01522 | <10 | <30 | <5 | 50 | 15 | <30 | 5 | <20 | 10 | 200 | <100 | <5 | <10 | 150 |
| TNR01523 | <10 | <30 | <5 | 70 | 15 | <30 | 20 | <20 | 5 | 1,500 | <100 | <5 | <10 | 150 |
| TNR01524 | <10 | <30 | <5 | 10 | 10 | <30 | 20 | <20 | 10 | 15 | <100 | <5 | <10 | <100 |
| TNR01525 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | 5 | <10 | <100 | <5 | <10 | <100 |
| TNR01526 | <10 | <30 | <5 | 70 | 15 | <30 | 10 | <20 | <5 | 10 | <100 | <5 | <10 | 500 |
| TNR01527 | <10 | <30 | <5 | 15 | 5 | <30 | <5 | <20 | 5 | <10 | <100 | <5 | <10 | 300 |
| TNR01528 | <10 | <30 | <5 | 30 | 30 | <30 | <5 | <20 | 5 | 15 | <100 | <5 | <10 | 200 |
| TNR01539 | <10 | <30 | <5 | <10 | <5 | <30 | 7 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TNR01540 | <10 | <30 | <5 | <10 | <5 | <30 | 20 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TNR01541 | <10 | <30 | <5 | <10 | <5 | <30 | 15 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TNR01545 | <10 | N | N | <10 | 50 | 20 | 50 | 20 | <5 | 200 | N | <5 | 30 | <100 |
| TNR01546 | 30 | N | N | <10 | 700 | 30 | 10 | <20 | <5 | 700 | N | <5 | N | N |
| TNR01547 | 30 | N | N | <10 | 50 | 30 | <5 | <20 | <5 | 200 | N | <5 | 50 | N |
| TNR01549 | 15 | 50 | 10 | 10 | 30 | 70 | N | N | <5 | 5,000 | 700 | 10 | 70 | 200 |
| TNR01553 | <10 | 70 | 20 | 30 | 50 | 30 | 15 | <20 | 70 | 15 | <100 | 7 | <20 | 300 |
| TNR01554 | <10 | <30 | <5 | 50 | 50 | <30 | 30 | <20 | 70 | 15 | 300 | 7 | <20 | 300 |
| TNR01555 | <10 | 70 | 20 | <10 | 30 | <30 | 70 | <20 | 700 | 30 | 700 | <5 | <20 | 150 |
| TNR01556 | <10 | <30 | 30 | <10 | 100 | 70 | 30 | <20 | 300 | 70 | <100 | <5 | <10 | 300 |
| TNR01557 | <10 | <30 | <5 | 70 | 70 | <30 | 30 | <20 | 30 | 10 | <100 | <5 | <10 | <100 |
| TNR01558 | <10 | <30 | <5 | 70 | 100 | <30 | 15 | <20 | 30 | 15 | <100 | 7 | <20 | 150 |
| TNR01560 | <10 | <30 | <5 | 150 | 100 | 30 | 7 | <20 | 5 | 100 | 200 | 5 | <20 | 300 |
| TNR01561 | <10 | <30 | <5 | 70 | 100 | 30 | 15 | <20 | 30 | 30 | <100 | 7 | <20 | 150 |
| TNR01562 | <10 | <30 | <5 | 15 | 15 | <30 | 20 | <20 | 30 | >20,000 | <100 | <5 | <20 | <100 |
| TNR01563 | <10 | 70 | <5 | 10 | 15 | <30 | 20 | <20 | 30 | >20,000 | <100 | <5 | <20 | <100 |
| TNR01564 | <10 | <30 | <5 | 15 | 7 | <30 | 7 | <20 | 10 | 300 | <100 | <5 | <10 | <100 |
| TNR01565 | <10 | <30 | <5 | 15 | 30 | <30 | 30 | <20 | <5 | 15 | <100 | <5 | <10 | <100 |
| TNR01566 | <10 | <30 | <5 | 10 | 30 | <30 | 30 | <20 | 10 | 15 | 200 | <5 | <10 | <100 |
| TNR01567 | <10 | <30 | <5 | 20 | 15 | <30 | 15 | <20 | 7 | 10 | 150 | <5 | <10 | 200 |
| TNR01568 | <10 | <30 | <5 | 30 | 30 | <30 | 15 | <20 | 5 | <10 | 150 | <5 | <10 | 150 |
| TNR01569 | <10 | <30 | <5 | 15 | 30 | <30 | 30 | <20 | 7 | 10 | 200 | <5 | <10 | 100 |
| TNR01570 | <10 | <30 | <5 | 30 | 70 | 70 | 70 | <20 | 30 | 15 | 150 | <5 | <20 | 700 |
| TNR01571 | <10 | <30 | <5 | 15 | 20 | <30 | 10 | <20 | 15 | 15 | <100 | 7 | <10 | <100 |
| TNR01572 | <10 | <30 | <5 | 20 | 30 | <30 | 30 | <20 | 20 | 10 | <100 | 7 | <10 | 150 |
| TNR01573 | <10 | <30 | <5 | 15 | 30 | <30 | 15 | <20 | 15 | 15 | <100 | <5 | <10 | 70 |
| TNR01575 | <10 | <30 | <5 | <5 | 7 | 70 | 20 | <20 | <5 | 15 | 700 | <5 | <10 | 150 |
| TNR01577 | N | N | N | <10 | 30 | 30 | N | N | <5 | 20,000 | 100 | <5 | 150 | <100 |
| TNR01578 | N | N | N | <10 | 50 | 30 | 30 | N | <5 | 500 | <100 | 5 | 50 | 1,000 |
| TNR01579 | N | N | N | <10 | N | 30 | 15 | N | <5 | 70 | 150 | 5 | N | N |
| TNR01580 | N | N | N | <10 | N | 20 | N | <20 | <5 | 50 | N | 5 | N | N |
| TNR01581 | N | N | N | <10 | N | 20 | N | N | <5 | 50 | N | <5 | N | 100 |
| TNR01590 | <10 | <30 | <5 | 50 | 50 | <30 | <5 | <20 | 20 | <10 | <100 | <5 | <10 | <100 |
| TNR01591 | <10 | <30 | <5 | 70 | 20 | <30 | <5 | <20 | 20 | <10 | <100 | <5 | <10 | <100 |
| TNR01592 | <10 | <30 | <5 | 30 | 7 | <30 | <5 | <20 | 5 | <10 | <100 | <5 | <10 | 150 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | V-ppm s | W-ppm s | Y-ppm s | Zn-ppm s | Zr-ppm s | Th-ppm s | Au-ppm aa | Hg-ppm inst | As-ppm aa | Zn-ppm aa | Cd-ppm aa | Bi-ppm aa | Sb-ppm aa | Tl-ppm aa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNR01520 | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | 6.00 | 198 | 7 | .5 | <2 | 29 | -- |
| TNR01521 | 100 | <50 | <10 | <200 | 30 | <200 | <.10 | 4.00 | 654 | 21 | .4 | <2 | 55 | -- |
| TNR01522 | 150 | <50 | <10 | 700 | 150 | <200 | <.10 | 17.00 | 311 | 279 | 2.1 | <2 | 14 | -- |
| TNR01523 | 150 | <50 | <10 | 700 | 100 | <200 | <.10 | 17.00 | 356 | 335 | 1.2 | <2 | 56 | -- |
| TNR01524 | 70 | <50 | <10 | 500 | <10 | <200 | <.10 | 2.80 | 122 | 268 | 1.1 | <2 | 21 | -- |
| TNR01525 | 15 | <50 | <10 | <200 | <10 | <200 | <.10 | .10 | 94 | 6 | .5 | <2 | 13 | -- |
| TNR01526 | 50 | <50 | 15 | <200 | 50 | <200 | <.10 | .08 | 70 | 4 | .4 | <2 | 3 | -- |
| TNR01527 | 20 | <50 | 10 | <200 | <10 | <200 | <.10 | .03 | 20 | 8 | .5 | <2 | 6 | -- |
| TNR01528 | 300 | <50 | <10 | <200 | 50 | <200 | <.10 | .14 | 163 | 27 | .4 | <2 | 26 | -- |
| TNR01539 | <10 | <50 | <10 | <200 | 30 | <200 | <.10 | <.02 | <5 | 5 | .3 | <2 | 3 | -- |
| TNR01540 | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | <.02 | 15 | 2 | .2 | <2 | <2 | -- |
| TNR01541 | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | <.02 | 7 | 7 | .3 | <2 | 2 | -- |
| TNR01545 | <10 | N | 10 | N | 70 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01546 | <10 | N | 10 | 300 | 50 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01547 | 10 | N | 15 | N | 70 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01549 | 100 | N | 20 | 2,000 | 100 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01553 | 700 | <50 | 20 | 1,500 | 150 | <200 | <.10 | .18 | 213 | 795 | 31.0 | <2 | 37 | 6.000 |
| TNR01554 | 700 | <50 | 15 | <200 | 70 | <200 | <.10 | .40 | 500 | 84 | 4.5 | <2 | 170 | 11.000 |
| TNR01555 | 70 | <50 | 30 | 3,000 | 70 | <200 | <.10 | .08 | 1,650 | 2,010 | 47.2 | <2 | 457 | 3.600 |
| TNR01556 | 30 | <50 | 70 | 3,000 | 30 | <200 | <.10 | 1.40 | 120 | 1,780 | 12.8 | <2 | 85 | 2.300 |
| TNR01557 | 300 | <50 | <10 | <200 | 30 | <200 | <.10 | 1.10 | 137 | 123 | 3.9 | <2 | 65 | .460 |
| TNR01558 | 300 | <50 | 15 | <200 | 50 | <200 | <.10 | .66 | 394 | 109 | 1.1 | <2 | 67 | 1.500 |
| TNR01560 | 150 | <50 | 15 | <200 | 150 | <200 | <.10 | 1.80 | 268 | 163 | .7 | <2 | 106 | 7.400 |
| TNR01561 | 300 | <50 | 20 | <200 | 70 | <200 | <.10 | .69 | 410 | 63 | 2.1 | <2 | 64 | 4.700 |
| TNR01562 | 15 | <50 | <10 | >10,000 | 30 | <200 | <.10 | .17 | 410 | 75,900 | 13.0 | <20 | 40 | .860 |
| TNR01563 | <10 | <50 | <10 | >10,000 | 15 | <200 | <.10 | .30 | 330 | 117,000 | 72.0 | <20 | 20 | .560 |
| TNR01564 | 15 | <50 | <10 | 3,000 | 15 | <200 | <.10 | <.08 | 36 | 5,900 | 5.0 | <2 | 15 | .560 |
| TNR01565 | 300 | <50 | 10 | <200 | 30 | <200 | <.10 | 1.80 | 81 | 32 | .2 | <2 | 42 | 2.400 |
| TNR01566 | 150 | <50 | 10 | <200 | 30 | <200 | <.10 | 1.50 | 105 | 25 | .3 | <2 | 60 | .770 |
| TNR01567 | 30 | <50 | 15 | <200 | 70 | <200 | <.10 | 1.30 | 120 | 7 | .2 | <2 | 49 | 5.900 |
| TNR01568 | 70 | <50 | 15 | <200 | 70 | <200 | <.10 | 3.60 | 173 | 6 | .3 | <2 | 60 | 4.900 |
| TNR01569 | 150 | <50 | 10 | <200 | 30 | <200 | <.10 | 13.00 | 218 | 20 | 1.3 | <2 | 110 | 5.800 |
| TNR01570 | 150 | <50 | 15 | <200 | 150 | <200 | <.10 | 1.00 | 555 | 58 | .8 | <2 | 106 | 3.400 |
| TNR01571 | 150 | <50 | 15 | <200 | 70 | <200 | <.10 | .70 | 117 | 54 | .5 | <2 | 31 | 1.100 |
| TNR01572 | 70 | <50 | 15 | <200 | 70 | <200 | <.10 | .81 | 471 | 32 | .6 | <2 | 65 | 6.400 |
| TNR01573 | 70 | <50 | 10 | <200 | 70 | <200 | <.10 | 1.50 | 81 | 39 | .3 | <2 | 25 | 3.100 |
| TNR01575 | 15 | <50 | <10 | <200 | 30 | <200 | <.10 | 3.50 | 242 | 20 | .4 | <2 | 130 | 29.000 |
| TNR01577 | 10 | N | 10 | 1,500 | 30 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01578 | 30 | N | 15 | 2,000 | 70 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01579 | 15 | N | 20 | N | 70 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01580 | 10 | N | 20 | N | 50 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01581 | 10 | N | 10 | N | 30 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR01590 | 30 | <50 | 10 | <200 | 30 | <200 | <.10 | .09 | 28 | 39 | <.1 | <2 | <2 | .031 |
| TNR01591 | 30 | <50 | <10 | <200 | 50 | <200 | <.10 | <.02 | 15 | 9 | <.1 | <2 | <2 | <.020 |
| TNR01592 | 20 | <50 | 10 | <200 | 150 | <200 | <.10 | 1.20 | 35 | 21 | .2 | <2 | <2 | 1.300 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--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 | B-ppm s | Ba-ppm s | Be-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNR01593 | 38 42 11 | 116 20 35 | .30 | 3.00 | 3.00 | .010 | 150 | <.5 | <700 | <15 | 10 | 70 | <1.0 |
| TNR01594 | 38 42 7 | 116 20 39 | .15 | 3.00 | 3.00 | .030 | 100 | <.5 | <700 | <15 | <10 | 50 | <1.0 |
| TNR01595 | 38 42 17 | 116 20 12 | .30 | 5.00 | 5.00 | .007 | 150 | <.5 | <700 | <15 | 10 | 150 | <1.0 |
| TNR01597 | 38 41 36 | 116 20 56 | .30 | 7.00 | 7.00 | <.002 | 70 | <.5 | <700 | <15 | <10 | <20 | <1.0 |
| TNR01598 | 38 41 38 | 116 21 0 | .15 | 3.00 | 3.00 | .007 | 300 | <.5 | <700 | <15 | 10 | 150 | <1.0 |
| TNR01599 | 38 41 39 | 116 21 2 | .15 | .70 | 1.50 | .007 | 500 | <.5 | <700 | <15 | <10 | 150 | <1.0 |
| TNR01600 | 38 41 18 | 116 20 19 | .15 | 1.50 | >20.00 | .015 | 100 | <.5 | <700 | <15 | <10 | 15 | <1.0 |
| TNR01601 | 38 40 4 | 116 20 6 | 1.50 | .07 | .20 | .100 | 30 | <.5 | 700 | <15 | 30 | 300 | <1.0 |
| TNR01602 | 38 40 3 | 116 20 5 | 1.50 | .03 | .15 | .070 | 100 | <.5 | 1,500 | <15 | 10 | 300 | <1.0 |
| TNR01603 | 38 40 3 | 116 20 5 | .50 | .02 | .10 | .030 | 15 | <.5 | 700 | <15 | <10 | 150 | <1.0 |
| TNR01604 | 38 40 5 | 116 20 0 | 1.00 | .15 | .30 | .030 | 15 | <.5 | 1,500 | <15 | 10 | 200 | <1.0 |
| TNR01605 | 38 40 5 | 116 20 0 | 7.00 | .03 | .15 | .015 | 150 | <.5 | 1,500 | <15 | <10 | 1,000 | <1.0 |
| TNR01609 | 38 40 7 | 116 20 0 | .70 | .07 | .30 | .015 | 70 | <.5 | 1,000 | <15 | <10 | 150 | <1.0 |
| TNR01611 | 38 40 54 | 116 20 47 | 3.00 | .15 | .50 | .070 | 70 | <.5 | <700 | <15 | 70 | 500 | 1.0 |
| TNR01612 | 38 40 52 | 116 20 46 | 1.50 | .15 | .15 | .150 | 70 | <.5 | <700 | <15 | 70 | 500 | <1.0 |
| TNR01613 | 38 40 51 | 116 20 46 | 1.50 | 1.50 | 1.50 | .070 | 150 | <.5 | <700 | <15 | 70 | 150 | 1.5 |
| TNR01621 | 38 32 28 | 116 21 58 | .70 | 2.00 | 10.00 | .015 | 150 | 1.5 | <700 | <15 | <10 | 70 | 1.0 |
| TNR01622 | 38 32 34 | 116 22 1 | 1.00 | 1.50 | 20.00 | .150 | 300 | <.5 | <700 | <15 | 15 | 500 | <1.0 |
| TNR01623 | 38 32 34 | 116 22 1 | 1.50 | .15 | .30 | .150 | 20 | <.5 | <700 | <15 | 30 | 200 | 3.0 |
| TNR01625 | 38 32 21 | 116 22 3 | 1.50 | .15 | 1.00 | .070 | 70 | <.5 | <700 | <15 | 70 | 2,000 | 7.0 |
| TNR01606 | 38 40 13 | 116 20 0 | .70 | .15 | .50 | .070 | 700 | <.5 | <700 | <15 | 70 | 500 | 3.0 |
| TNR01607 | 38 40 13 | 116 20 4 | .70 | .15 | 3.00 | .015 | 150 | <.5 | <700 | <15 | 10 | 300 | 1.5 |
| TNR01608 | 38 40 7 | 116 20 0 | 3.00 | 3.00 | 7.00 | .030 | >5,000 | <.5 | 1,500 | <15 | 30 | 500 | 2.0 |
| TNR01610 | 38 40 7 | 116 20 0 | 3.00 | .03 | .20 | .070 | 70 | 1.5 | 2,000 | <15 | <10 | 300 | <1.0 |
| TNR01614 | 38 42 18 | 116 20 7 | 1.50 | 7.00 | 7.00 | .002 | 200 | <.5 | <700 | <15 | <10 | 30 | <1.0 |
| TNR01617 | 38 31 42 | 116 20 7 | .70 | 2.00 | >20.00 | .020 | 3,000 | 15.0 | <700 | <15 | <10 | 700 | 3.0 |
| TNR01618 | 38 31 42 | 116 20 7 | .15 | 2.00 | 5.00 | .007 | 500 | 10.0 | <700 | <15 | 15 | 150 | <1.0 |
| TJMP132A | 38 40 6 | 116 19 55 | 5.00 | .10 | .15 | .002 | 200 | N | 2,000 | N | 10 | 100 | <1.0 |
| TJMP133A | 38 40 12 | 116 20 0 | 1.00 | .10 | .15 | .030 | 150 | N | <200 | N | 10 | 150 | 1.0 |
| TJMP133B | 38 40 12 | 116 20 0 | .20 | .07 | .10 | <.002 | 20 | N | N | N | <10 | <20 | <1.0 |
| TJMP134A | 38 40 14 | 116 19 57 | .30 | 7.00 | 10.00 | .070 | 150 | N | N | N | 70 | 20 | <1.0 |
| TJMP134B | 38 40 14 | 116 19 57 | 1.50 | .07 | .20 | .050 | 30 | N | 200 | N | 20 | 150 | <1.0 |
| TJMP135A | 38 40 21 | 116 19 55 | .70 | .10 | .07 | .150 | 10 | N | N | N | 150 | 150 | 1.5 |
| TJMP136 | 38 40 26 | 116 19 50 | .70 | .03 | <.05 | .015 | 50 | N | 200 | N | 20 | 100 | 1.0 |
| TJMP136A | 38 40 26 | 116 19 50 | .50 | 10.00 | 20.00 | .030 | 300 | N | <200 | N | 30 | N | <1.0 |
| TJMP137 | 38 40 28 | 116 19 57 | 7.00 | .07 | .10 | .007 | 200 | N | 1,000 | N | 10 | 150 | 1.0 |
| TJMP138 | 38 40 38 | 116 19 54 | 2.00 | .15 | .70 | .100 | 20 | .5 | 700 | N | 100 | 1,000 | 1.0 |
| TJMP139B | 38 40 28 | 116 20 0 | .70 | .07 | .10 | .070 | 200 | N | N | N | 100 | 300 | 1.0 |
| TJMP142A | 38 40 22 | 116 20 10 | 1.50 | .10 | .10 | .150 | 100 | N | 200 | N | 200 | 700 | 1.0 |
| TJMP142B | 38 40 22 | 116 20 10 | 1.50 | .15 | .07 | .150 | 20 | .5 | 200 | N | 200 | 300 | 1.5 |
| TJMP143 | 38 40 26 | 116 20 17 | 10.00 | .15 | .20 | .200 | 20 | N | 3,000 | N | 200 | 300 | 1.5 |
| TJMP144A | 38 40 33 | 116 20 30 | .70 | .15 | .10 | .300 | <10 | N | N | N | 50 | 200 | 3.0 |
| TJMP144C | 38 40 33 | 116 20 30 | 3.00 | .07 | .20 | .200 | 30 | N | 2,000 | N | 30 | 500 | 2.0 |
| TJMP145A | 38 40 32 | 116 20 20 | 2.00 | .15 | .50 | .150 | 30 | N | N | N | 200 | 150 | 3.0 |
| TJMP145B | 38 40 32 | 116 20 20 | .50 | 10.00 | 20.00 | .030 | 200 | N | N | N | 50 | N | <1.0 |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | 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 | Sb-ppm s | Sc-ppm s | Sn-ppm s | Sr-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNR01593 | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | 5 | 10 | <100 | <5 | <10 | <100 |
| TNR01594 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | <5 | 15 | <100 | <5 | <10 | <100 |
| TNR01595 | <10 | <30 | <5 | <10 | 5 | <30 | <5 | <20 | 15 | <10 | <100 | <5 | <10 | <100 |
| TNR01597 | <10 | <30 | <5 | <10 | <5 | <30 | <5 | <20 | 7 | 30 | <100 | <5 | <10 | <100 |
| TNR01598 | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TNR01599 | <10 | <30 | <5 | <10 | 30 | <30 | <5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TNR01600 | <10 | <30 | <5 | 15 | 7 | <30 | 7 | <20 | 7 | 20 | <100 | <5 | <10 | 300 |
| TNR01601 | <10 | <30 | <5 | 10 | 7 | 70 | 20 | <20 | <5 | 10 | 300 | <5 | <10 | 150 |
| TNR01602 | <10 | <30 | <5 | <10 | 7 | 30 | 5 | <20 | <5 | <10 | <100 | <5 | <10 | 100 |
| TNR01603 | <10 | <30 | <5 | <10 | <5 | <30 | 5 | <20 | <5 | <10 | <100 | <5 | <10 | <100 |
| TNR01604 | <10 | <30 | <5 | <10 | 7 | <30 | 15 | <20 | 5 | <10 | 200 | <5 | <10 | <100 |
| TNR01605 | <10 | <30 | <5 | 15 | 15 | <30 | 70 | <20 | 7 | <10 | 300 | <5 | <10 | <100 |
| TNR01609 | <10 | <30 | <5 | <10 | <5 | 50 | <5 | <20 | 5 | <10 | 150 | <5 | <10 | <100 |
| TNR01611 | <10 | <30 | <5 | 70 | 70 | <30 | <5 | <20 | <5 | 10 | <100 | 5 | <10 | 150 |
| TNR01612 | <10 | <30 | <5 | 70 | 15 | 30 | 7 | <20 | 5 | <10 | <100 | 5 | <10 | 150 |
| TNR01613 | <10 | <30 | <5 | 30 | 15 | 30 | 7 | <20 | 30 | 15 | 300 | <5 | <10 | 150 |
| TNR01621 | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | 7 | <10 | 200 | <5 | <10 | <100 |
| TNR01622 | <10 | <30 | 5 | 30 | 7 | <30 | <5 | <20 | 15 | <10 | <100 | 7 | <10 | 500 |
| TNR01623 | <10 | <30 | <5 | 15 | 7 | <30 | 7 | <20 | 7 | <10 | 100 | <5 | <10 | 300 |
| TNR01625 | <10 | <30 | <5 | 15 | 7 | 30 | 5 | <20 | 7 | 15 | 100 | <5 | <10 | 300 |
| TNR01606 | <10 | <30 | <5 | 15 | 7 | <30 | 5 | <20 | 5 | <10 | 150 | <5 | <10 | <100 |
| TNR01607 | <10 | <30 | <5 | <10 | 5 | <30 | 7 | <20 | <5 | <10 | 150 | <5 | <10 | 100 |
| TNR01608 | <10 | <30 | 70 | 15 | 7 | <30 | 7 | <20 | 50 | 10 | 200 | <5 | <10 | <100 |
| TNR01610 | <10 | <30 | <5 | 10 | 15 | 30 | 15 | <20 | <5 | <10 | 500 | <5 | <10 | <100 |
| TNR01614 | <10 | <30 | <5 | <10 | 7 | <30 | 20 | <20 | 20 | 50 | <100 | <5 | <10 | <100 |
| TNR01617 | <10 | <30 | <5 | <10 | 70 | <30 | <5 | <20 | 30 | 150 | <100 | <5 | <10 | 150 |
| TNR01618 | <10 | <30 | <5 | <10 | 7 | <30 | <5 | <20 | <5 | 30 | <100 | <5 | <10 | <100 |
| TJMP132A | N | N | N | 20 | 10 | <20 | 1,000 | N | 30 | <10 | 200 | N | N | N |
| TJMP133A | N | N | N | 10 | <5 | 20 | 10 | N | 7 | <10 | 700 | N | N | N |
| TJMP133P | N | N | N | 10 | <5 | <20 | N | N | 7 | N | N | N | N | N |
| TJMP134A | N | N | N | 20 | 7 | 20 | N | N | <5 | 10 | N | N | N | N |
| TJMP134B | N | N | N | 30 | 7 | 30 | 20 | N | 5 | <10 | <100 | N | N | <100 |
| TJMP135A | N | N | N | 50 | 7 | 30 | 10 | N | 5 | <10 | 150 | N | N | <100 |
| TJMP136 | N | N | N | 20 | <5 | <20 | N | N | <5 | <10 | N | N | N | N |
| TJMP136A | N | N | N | 20 | <5 | 20 | N | N | N | 10 | N | N | N | N |
| TJMP137 | N | N | N | 20 | 7 | <20 | 700 | N | 5 | <10 | 150 | N | N | N |
| TJMP138 | N | N | <5 | 20 | 20 | 20 | 100 | N | 70 | 15 | 500 | N | N | <100 |
| TJMP139B | N | N | <5 | 50 | 7 | 20 | 10 | N | 10 | <10 | 100 | N | N | N |
| TJMP142A | N | N | <5 | 50 | 7 | 20 | 15 | N | 15 | 20 | 150 | N | N | N |
| TJMP142B | N | N | N | 50 | 5 | 20 | 15 | N | 7 | 20 | 200 | N | N | <100 |
| TJMP143 | N | N | N | 30 | 10 | 50 | 300 | <20 | 5 | 20 | 500 | <5 | N | 100 |
| TJMP144A | N | N | N | N | <5 | 30 | N | N | 5 | 30 | N | <5 | N | N |
| TJMP144C | N | N | N | 20 | 10 | 20 | 100 | <20 | 5 | 20 | 200 | <5 | N | <100 |
| TJMP145A | N | N | <5 | 30 | 10 | 20 | 7 | N | 70 | 10 | 150 | N | N | <100 |
| TJMP145B | N | N | N | 15 | 5 | <20 | 5 | N | <5 | <10 | <100 | N | N | N |

TABLE 3.--ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | V-ppm s | W-ppm s | Y-ppm s | Zn-ppm s | Zr-ppm s | Th-ppm s | Au-ppm aa | Hg-ppm inst | As-ppm aa | Zn-ppm aa | Cd-ppm aa | Bi-ppm aa | Sb-ppm aa | Tl-ppm aa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNR01593 | 15 | <50 | <10 | <200 | <10 | <200 | <.10 | .07 | 16 | 20 | <.1 | <2 | 3 | .130 |
| TNR01594 | 10 | <50 | <10 | <200 | 30 | <200 | <.10 | .05 | 20 | 12 | .1 | <2 | 3 | .430 |
| TNR01595 | 15 | <50 | <10 | <200 | <10 | <200 | <.10 | .19 | 75 | 67 | .1 | <2 | 5 | .350 |
| TNR01597 | 15 | <50 | <10 | <200 | <10 | <200 | <.10 | 1.20 | 116 | 175 | .2 | <2 | 16 | 1.400 |
| TNR01598 | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | .06 | <5 | 20 | <.1 | <2 | 2 | .064 |
| TNR01599 | <10 | <50 | <10 | <200 | 15 | <200 | <.10 | .05 | <5 | 11 | <.1 | <2 | <2 | .037 |
| TNR01600 | 70 | <50 | 15 | <200 | 15 | <200 | <.10 | .27 | 19 | 10 | .2 | <2 | <2 | .370 |
| TNR01601 | 15 | <50 | 30 | <200 | 100 | <200 | <.10 | 5.50 | 427 | 4 | <.1 | <2 | 42 | 7.800 |
| TNR01602 | <10 | <50 | <10 | <200 | 70 | <200 | <.10 | 4.90 | 929 | 11 | .1 | <2 | 34 | 2.500 |
| TNR01603 | <10 | <50 | <10 | <200 | 20 | <200 | <.10 | 6.80 | 449 | <2 | <.1 | <2 | 33 | 6.000 |
| TNR01604 | <10 | <50 | <10 | <200 | 30 | <200 | <.10 | 5.50 | 931 | 6 | <.1 | <2 | 35 | 7.300 |
| TNR01605 | 15 | <50 | <10 | <200 | 15 | <200 | <.10 | .94 | 1,510 | 15 | .3 | <2 | 93 | 32.000 |
| TNR01609 | <10 | <50 | 20 | <200 | 15 | <200 | <.10 | 11.00 | 749 | 14 | .2 | <2 | 58 | 16.000 |
| TNR01611 | 70 | <50 | 15 | <200 | 70 | <200 | <.10 | .84 | 405 | 12 | .2 | <2 | 36 | 8.200 |
| TNR01612 | 70 | <50 | 15 | <200 | 100 | <200 | <.10 | 4.20 | 253 | 7 | .1 | <2 | 30 | 9.200 |
| TNR01613 | 30 | <50 | 30 | <200 | 30 | <200 | <.10 | 11.00 | 428 | 96 | .5 | <2 | 116 | 11.000 |
| TNR01621 | 10 | <50 | <10 | <200 | 30 | <200 | .50 | .78 | 33 | 7 | .1 | <2 | 46 | .950 |
| TNR01622 | 70 | <50 | 15 | <200 | 30 | <200 | .10 | .39 | 33 | 52 | .3 | <2 | 15 | 1.200 |
| TNR01623 | 30 | <50 | 15 | <200 | 150 | <200 | .10 | 1.60 | 92 | 16 | .1 | <2 | 53 | 2.700 |
| TNR01625 | 30 | <50 | 15 | <200 | 150 | <200 | .10 | 2.60 | 137 | 26 | .2 | <2 | 51 | 5.400 |
| TNR01606 | 30 | <50 | 30 | <200 | 70 | <200 | <.10 | .88 | 137 | 61 | .1 | <2 | 38 | 5.400 |
| TNR01607 | <10 | <50 | 15 | <200 | <10 | <200 | <.10 | .24 | 164 | 13 | <.1 | <2 | 33 | 12.000 |
| TNR01608 | 15 | <50 | 30 | 700 | 70 | <200 | <.10 | 9.20 | 1,980 | 488 | .5 | <2 | 78 | 130.000 |
| TNR01610 | 20 | <50 | 15 | <200 | 70 | <200 | <.10 | 13.00 | 2,120 | 8 | .1 | <2 | 112 | 44.000 |
| TNR01614 | 50 | <50 | <10 | 1,000 | <10 | <200 | <.10 | 9.90 | 229 | 1,100 | 3.0 | <2 | 39 | 5.700 |
| TNR01617 | 10 | 70 | 15 | 300 | 15 | <200 | <.10 | .05 | 193 | 324 | 1.1 | <2 | 49 | 13.000 |
| TNR01618 | 10 | <50 | <10 | <200 | <10 | <200 | <.10 | .03 | 22 | 41 | .2 | <2 | 15 | .730 |
| TJMP132A | 50 | N | N | <200 | <10 | N | N | >5.00 | 1,600 | 120 | N | N | 120 | -- |
| TJMP133A | 10 | N | N | N | <10 | N | N | 4.60 | 170 | 15 | N | N | 280 | -- |
| TJMP133B | <10 | N | N | N | N | N | N | 1.90 | 15 | 5 | .1 | N | 20 | -- |
| TJMP134A | 30 | N | 20 | N | 150 | N | <.05 | 1.40 | 20 | 20 | N | N | 12 | -- |
| TJMP134B | 15 | N | N | N | 20 | N | N | 3.70 | 100 | 10 | N | N | 24 | -- |
| TJMP135A | 70 | N | 10 | N | 70 | N | N | 3.00 | 65 | 5 | .1 | N | 70 | -- |
| TJMP136 | <10 | N | N | N | 20 | N | N | 2.20 | 80 | 10 | N | N | 20 | -- |
| TJMP136A | 10 | N | <10 | N | 50 | N | N | .50 | 5 | <5 | .1 | N | 6 | -- |
| TJMP137 | 20 | N | N | N | <10 | N | N | 2.60 | 750 | 5 | N | N | 66 | -- |
| TJMP138 | 70 | N | 30 | N | 50 | N | .05 | >5.00 | 530 | 20 | .4 | N | 300 | -- |
| TJMP139B | 30 | N | N | N | 30 | N | N | 3.20 | 55 | 5 | N | N | 70 | -- |
| TJMP142A | 50 | N | 20 | <200 | 70 | N | N | >5.00 | 220 | 110 | 1.4 | N | 78 | -- |
| TJMP142B | 70 | N | 15 | N | 50 | N | .25 | 1.20 | 230 | 5 | .1 | N | 100 | -- |
| TJMP143 | 150 | N | 30 | N | 150 | N | N | 4.60 | >2,000 | 10 | .2 | N | 200 | -- |
| TJMP144A | 100 | N | 15 | N | 150 | N | N | .90 | <5 | N | N | N | 10 | -- |
| TJMP144C | 100 | N | 15 | N | 70 | N | <.05 | >5.00 | 1,800 | 5 | .1 | N | 80 | -- |
| TJMP145A | 50 | N | 20 | <200 | 50 | N | N | >5.00 | 100 | 90 | .5 | N | 110 | -- |
| TJMP145B | 20 | N | 10 | N | 10 | N | N | 2.30 | 20 | 5 | N | N | 36 | -- |

TABLE 3.-- ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--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 | B-ppm s | Ba-ppm s | Be-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJMP146B | 38 42 37 | 116 20 28 | 1.50 | .10 | .20 | .050 | 15 | N | 300 | N | 30 | 500 | N |
| TJMP147 | 38 42 40 | 116 20 40 | 2.00 | 10.00 | 20.00 | N | 150 | N | N | N | N | N | N |
| TJMP148 | 38 42 42 | 116 20 37 | <.05 | 7.00 | 15.00 | N | 100 | N | N | N | N | N | N |
| TND00462 | 38 40 8 | 116 15 31 | 7.00 | .20 | .70 | .150 | >5,000 | 1,000.0 | 5,000 | N | 70 | 200 | 1.5 |
| TND00463 | 38 40 8 | 116 15 31 | 7.00 | .30 | .07 | .200 | 500 | 20.0 | 300 | N | 50 | 300 | 5.0 |
| TND00464 | 38 40 8 | 116 15 31 | 1.50 | <.02 | .05 | <.002 | >5,000 | 700.0 | 1,000 | N | 10 | 150 | 1.5 |
| TND00465 | 38 40 8 | 116 15 31 | 5.00 | .30 | 1.00 | .070 | >5,000 | 300.0 | 5,000 | N | 50 | 50 | 1.0 |
| TND00466 | 38 39 56 | 116 16 58 | .50 | <.02 | N | .030 | 5,000 | 3.0 | 1,000 | N | 50 | 100 | <1.0 |
| TND00467 | 38 39 56 | 116 16 58 | 2.00 | .15 | .07 | .200 | 3,000 | 7.0 | 1,000 | N | 200 | 150 | 2.0 |
| TND00468 | 38 39 57 | 117 17 8 | 2.00 | .03 | .05 | .030 | >5,000 | 1,000.0 | 300 | N | 50 | 70 | 1.5 |
| TNR04032 | 38 40 9 | 116 15 16 | 15.00 | .02 | .10 | .007 | >5,000 | 2,000.0 | 5,000 | N | <10 | 200 | 2.0 |
| TNR04033 | 38 40 2 | 116 15 10 | 5.00 | .50 | .15 | .500 | 2,000 | 10.0 | <200 | N | 70 | 1,000 | 2.0 |
| TNR04034 | 38 40 0 | 116 15 9 | 7.00 | .50 | .15 | .500 | 3,000 | 1.0 | <200 | N | 200 | 1,000 | 3.0 |
| TNR04035 | 38 39 58 | 116 15 9 | 5.00 | .50 | .20 | .300 | 3,000 | <.5 | <200 | N | 100 | 500 | 2.0 |
| TNR04036 | 38 39 56 | 116 15 10 | 5.00 | .30 | 2.00 | .500 | 1,000 | .7 | N | N | 150 | 1,000 | 5.0 |
| TNR04037 | 38 39 54 | 116 15 13 | 5.00 | .20 | 2.00 | .300 | >5,000 | 300.0 | 1,000 | N | 150 | 1,500 | 2.0 |
| TND00466 | 38 39 56 | 116 16 58 | .50 | <.02 | N | .030 | 5,000 | 3.0 | 1,000 | N | 50 | 100 | <1.0 |
| TNH00868 | 38 32 52 | 116 26 20 | 2.00 | 3.00 | 3.00 | .200 | 500 | 2.0 | N | N | 70 | 1,000 | 5.0 |
| TND00869 | 38 32 52 | 116 26 20 | 2.00 | .05 | .15 | .020 | 3,000 | 7.0 | 1,000 | N | 10 | >5,000 | 10.0 |
| TND00870 | 38 32 52 | 116 26 20 | .15 | <.02 | .15 | <.002 | 700 | 2.0 | <200 | N | N | >5,000 | 1.5 |
| TND00871 | 38 32 52 | 116 26 20 | >20.00 | .30 | 1.00 | .030 | 5,000 | 10.0 | >10,000 | N | 15 | 5,000 | 30.0 |
| TNR00872 | 38 32 51 | 116 26 18 | 2.00 | .10 | .20 | .010 | >5,000 | 50.0 | 1,000 | N | 15 | 3,000 | 10.0 |
| TNR00873 | 38 32 51 | 116 26 19 | .15 | .20 | .10 | .100 | 150 | 1.5 | 500 | N | 20 | 500 | N |
| NT77A | 38 40 8 | 116 15 31 | 5.00 | .50 | 1.50 | .500 | >5,000 | 100.0 | 10,000 | N | 150 | 500 | 2.0 |
| NT77B | 38 40 8 | 116 15 31 | 5.00 | .30 | 1.50 | .300 | >5,000 | 150.0 | 10,000 | N | 200 | 500 | 1.5 |
| NT78A | 38 40 5 | 116 15 32 | 3.00 | .70 | 2.00 | .700 | >5,000 | 5.0 | 1,500 | N | 200 | 700 | 2.0 |
| NT79A | 38 40 9 | 116 15 33 | 1.50 | .70 | .30 | .500 | 1,000 | 3.0 | 300 | N | 150 | 300 | 1.5 |
| NT79B | 38 40 9 | 116 15 33 | 5.00 | .50 | 1.50 | .500 | 5,000 | 50.0 | 1,500 | N | 150 | 500 | 3.0 |
| NT81 | 38 40 8 | 116 15 17 | 2.00 | .70 | 2.00 | .300 | >5,000 | 50.0 | 1,500 | N | 100 | 500 | 2.0 |

TABLE 3.-- ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | 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 | Sb-ppm s | Sc-ppm s | Sn-ppm s | Sr-ppm s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJMP146B | N | N | N | 30 | 30 | <20 | 150 | N | 15 | 50 | <100 | N | N | 150 |
| TJMP147 | N | N | N | <10 | <5 | <20 | N | N | 5 | 20 | N | N | N | N |
| TJMP148 | N | N | N | N | <5 | <20 | N | N | N | <10 | N | N | N | N |
| TND00462 | N | 200 | N | <10 | 300 | 20 | N | N | <5 | 15,000 | 7,000 | 7 | 700 | N |
| TND00463 | 200 | 30 | <5 | <10 | 20 | 150 | N | <20 | 5 | 3,000 | 700 | 10 | 200 | N |
| TND00464 | N | 70 | N | N | 200 | 20 | 20 | N | 5 | 20,000 | 5,000 | <5 | 200 | 150 |
| TND00465 | N | 300 | 5 | N | 1,000 | 20 | 10 | N | 5 | 5,000 | 700 | 7 | 1,000 | <100 |
| TND00466 | N | N | N | N | 20 | N | N | N | <5 | 150 | <100 | N | 20 | <100 |
| TND00467 | N | 20 | 5 | <10 | 10 | 50 | 5 | N | 5 | 70 | N | <5 | N | <100 |
| TND00468 | N | 100 | N | <10 | 500 | 20 | 30 | N | 5 | 15,000 | 2,000 | <5 | 200 | 300 |
| TNR04032 | N | N | N | <10 | 3,000 | <20 | 20 | N | <5 | >20,000 | >10,000 | 7 | 1,000 | 300 |
| TNR04033 | N | N | 10 | 10 | 20 | 50 | N | N | 5 | 1,500 | 100 | 10 | N | 200 |
| TNR04034 | N | N | 15 | 15 | 7 | 70 | N | N | 10 | 70 | N | 10 | N | <100 |
| TNR04035 | N | N | 15 | 30 | 5 | 100 | 5 | N | 5 | 50 | N | 10 | N | 100 |
| TNR04036 | N | N | 10 | 10 | 7 | 50 | N | N | 5 | 50 | N | 10 | N | 200 |
| TNR04037 | N | N | 15 | 10 | 100 | 50 | 20 | N | 5 | 2,000 | 1,000 | 15 | 30 | 500 |
| TND00466 | N | N | N | N | 20 | N | N | N | <5 | 150 | <100 | N | 20 | <100 |
| TNH00868 | N | N | 5 | 20 | 15 | 70 | 5 | N | 5 | 50 | 150 | 7 | N | 100 |
| TND00869 | N | N | 7 | 10 | 15 | <20 | 10 | N | 5 | <10 | 500 | <5 | N | 200 |
| TND00870 | N | N | 5 | <10 | <5 | 20 | N | N | <5 | N | N | <5 | N | 5,000 |
| TND00871 | N | N | 30 | 10 | 7 | 70 | 100 | N | 20 | 20 | 3,000 | N | N | >5,000 |
| TNR00872 | N | N | 30 | 10 | 15 | 20 | 15 | N | 30 | 10 | 300 | 5 | N | 500 |
| TNR00873 | N | N | N | <10 | N | 70 | N | N | <5 | 10 | <100 | <5 | N | <100 |
| NT77A | N | 70 | 10 | 10 | 100 | 50 | 5 | <20 | <5 | 3,000 | 500 | 10 | 50 | 100 |
| NT77B | N | 50 | 5 | 15 | 200 | 100 | 15 | N | <5 | 5,000 | 1,500 | 10 | 50 | 100 |
| NT78A | N | N | 10 | 15 | 50 | 100 | 7 | <20 | <5 | 1,500 | <100 | 10 | 50 | 100 |
| NT79A | N | N | 5 | 15 | 20 | 70 | 10 | 20 | <5 | 20 | <100 | 10 | 10 | 100 |
| NT79B | N | N | 7 | 15 | 50 | 70 | 10 | 20 | <5 | 300 | 200 | 10 | 20 | 150 |
| NT81 | N | N | 7 | 15 | 50 | 70 | 5 | <20 | <5 | 500 | 100 | 10 | 20 | 150 |

TABLE 3.-- ANALYTICAL DATA FOR ROCK SAMPLES FROM THE MOREY-FANDANGO WSA--Continued

| Sample | V-ppm s | W-ppm s | Y-ppm s | Zn-ppm s | Zr-ppm s | Th-ppm s | Au-ppm aa | Hg-ppm inst | As-ppm aa | Zn-ppm aa | Cd-ppm aa | Bi-ppm aa | Sb-ppm aa | Tl-ppm aa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TJMP146B | 200 | N | N | 200 | 20 | N | N | 2.80 | 410 | 15 | 3.6 | N | 20 | -- |
| TJMP147 | 50 | N | N | N | <10 | N | N | .34 | 40 | 10 | N | N | 2 | -- |
| TJMP148 | 10 | N | N | N | N | N | N | >5.00 | 20 | 10 | N | N | 2 | -- |
| TND00462 | 50 | N | 15 | 10,000 | 100 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND00463 | 30 | N | 20 | 1,000 | 150 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND00464 | 15 | N | 10 | 7,000 | <10 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND00465 | 100 | N | 20 | >10,000 | 100 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND00466 | <10 | N | N | 700 | 20 | N | -- | -- | >200 | >200 | 9.4 | N | 45 | -- |
| TND00467 | 30 | N | 10 | 1,000 | 150 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND00468 | 20 | N | <10 | 5,000 | 50 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR04032 | 50 | N | 20 | 5,000 | N | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR04033 | 100 | N | 20 | N | 300 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR04034 | 150 | N | 20 | N | 200 | N | -- | .06 | -- | -- | -- | -- | -- | N |
| TNR04035 | 100 | N | 30 | N | 150 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TNR04036 | 100 | N | 20 | N | 300 | N | -- | .08 | -- | -- | -- | -- | -- | .500 |
| TNR04037 | 150 | N | 30 | 1,000 | 150 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| TND00466 | <10 | N | N | 700 | 20 | N | -- | -- | >200 | >200 | 9.4 | N | 45 | -- |
| TNH00868 | 70 | N | 20 | 1,500 | 100 | N | <.05 | .18 | 230 | -- | -- | -- | -- | 2.200 |
| TND00869 | 50 | N | 10 | N | 20 | N | 1.50 | .40 | -- | -- | -- | -- | 360 | 6.800 |
| TND00870 | 10 | N | <10 | N | 10 | N | .15 | .06 | 50 | -- | -- | -- | 12 | .600 |
| TND00871 | 30 | N | 100 | 2,000 | 30 | N | .05 | .28 | -- | -- | -- | -- | -- | 10.000 |
| TNR00872 | 70 | N | 10 | 500 | 30 | N | .85 | .54 | -- | -- | -- | -- | -- | 11.000 |
| TNR00873 | 20 | N | <10 | N | 70 | N | .05 | .38 | -- | -- | -- | -- | 30 | 1.000 |
| NT77A | 100 | N | 20 | 500 | 300 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| NT77B | 70 | N | 20 | 700 | 150 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| NT78A | 70 | N | 20 | 300 | 200 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| NT79A | 100 | N | 20 | N | 200 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| NT79B | 70 | N | 20 | 500 | 200 | N | -- | -- | -- | -- | -- | -- | -- | -- |
| NT81 | 70 | N | 30 | 500 | 200 | N | -- | -- | -- | -- | -- | -- | -- | -- |

**TABLE 4.--Statistical summary of analytical data for rock samples from the Morey and Fandango Wilderness Study Areas**

[Explanation: S, as in S-Fe, determined by emission spectrography; AA, as in AA-Au, determined by atomic absorption spectrometry; Valid, unqualified; B, not determined; L, less than limit of determination; N, not detected; G, greater than limit of determination]

| Element | Minimum | Maximum | Geom. Mean | Valid | B | L | N | G |
|---|---|---|---|---|---|---|---|---|
| S-Fe% | .05 | 20.0 | 1.08 | 288 | 0 | 6 | 0 | 5 |
| S-Mg% | .02 | 10.0 | .24 | 289 | 0 | 10 | 0 | 0 |
| S-Ca% | .05 | 20.0 | .43 | 284 | 0 | 8 | 2 | 5 |
| S-Ti% | .002 | .7 | .047 | 267 | 0 | 30 | 2 | 0 |
| S-Mn | 10.0 | 5,000.0 | 82.5 | 275 | 0 | 6 | 0 | 18 |
| S-Ag | .5 | 5,000.0 | 7.2 | 70 | 0 | 209 | 20 | 0 |
| S-As | 200.0 | 10,000.0 | 1,124.0 | 65 | 0 | 216 | 14 | 4 |
| S-Au | 15.0 | 15.0 | 15.0 | 1 | 0 | 239 | 59 | 0 |
| S-B | 10.0 | 200.0 | 39.3 | 200 | 1 | 93 | 5 | 0 |
| S-Ba | 7.0 | 5,000.0 | 241.0 | 274 | 0 | 15 | 4 | 6 |
| S-Be | 1.0 | 30.0 | 2.0 | 111 | 0 | 184 | 4 | 0 |
| S-Bi | 15.0 | 500.0 | 93.7 | 6 | 0 | 238 | 55 | 0 |
| S-Cd | 20.0 | 500.0 | 97.6 | 16 | 0 | 234 | 48 | 1 |
| S-Co | 5.0 | 200.0 | 10.5 | 49 | 0 | 215 | 35 | 0 |
| S-Cr | 7.0 | 300.0 | 28.1 | 166 | 0 | 127 | 6 | 0 |
| S-Cu | 5.0 | 7,000.0 | 21.1 | 235 | 0 | 60 | 4 | 0 |
| S-La | 20.0 | 150.0 | 39.2 | 96 | 0 | 201 | 2 | 0 |
| S-Mo | 5.0 | 1,000.0 | 18.8 | 178 | 0 | 101 | 20 | 0 |
| S-Nb | 20.0 | 20.0 | 20.0 | 3 | 0 | 248 | 48 | 0 |
| S-Ni | 5.0 | 1,500.0 | 13.3 | 168 | 0 | 129 | 2 | 0 |
| S-Pb | 10.0 | 20,000.0 | 47.7 | 159 | 0 | 134 | 2 | 4 |
| S-Sb | 100.0 | 7,000.0 | 295.0 | 87 | 0 | 194 | 17 | 1 |
| S-Sc | 5.0 | 15.0 | 6.73 | 59 | 0 | 219 | 21 | 0 |
| S-Sn | 10.0 | 1,000.0 | 83.2 | 26 | 0 | 236 | 36 | 1 |
| S-Sr | 70.0 | 5,000.0 | 229.0 | 119 | 0 | 156 | 21 | 3 |
| S-V | 10.0 | 1,500.0 | 54.4 | 226 | 0 | 73 | 0 | 0 |
| S-W | 70.0 | 100.0 | 83.7 | 2 | 0 | 237 | 60 | 0 |
| S-Y | 10.0 | 100.0 | 16.1 | 144 | 0 | 142 | 13 | 0 |
| S-Zn | 200.0 | 10,000.0 | 1,081.0 | 62 | 0 | 201 | 30 | 6 |
| S-Zr | 10.0 | 300.0 | 46.7 | 241 | 0 | 53 | 5 | 0 |
| S-Th | *** | *** | *** | 0 | 0 | 239 | 60 | 0 |
| AA-Au | .05 | 1.5 | .17 | 17 | 33 | 232 | 17 | 0 |
| INST-Hg | .02 | 28.0 | .81 | 247 | 32 | 14 | 0 | 6 |
| AA-As | 5.0 | 2,720.0 | 128.0 | 243 | 35 | 18 | 0 | 3 |
| AA-Zn | 2.0 | 117,000.0 | 29.4 | 236 | 37 | 22 | 1 | 3 |
| AA-Cd | .1 | 261.0 | .59 | 207 | 37 | 44 | 11 | 0 |
| AA-Bi | 2.0 | 347.0 | 7.33 | 16 | 37 | 223 | 23 | 0 |
| AA-Sb | 2.0 | 1,310.0 | 25.4 | 244 | 34 | 21 | 0 | 0 |
| AA-Tl | .031 | 130.0 | 2.49 | 61 | 236 | 1 | 1 | 0 |

**TABLE 5.--Geochemical signatures of Morey-type and jasperoid alteration and mineralized rocks**

[Values computed for most mineralized examples of each type, 33 samples from Morey and 72 samples of jasperoid; geometric mean is a rough estimate only; **, not computed, too few determinations; (S), determined by emission spectrography; (AA), determined by atomic absorption; (AA, S), geometric mean is from atomic absorption, and maximum value taken from emission spectrography)]

| Element (ppm) alteration | Morey-type mineralization | | Jasperoid | |
|---|---|---|---|---|
| | Geom. mean | Max. value | Geom. mean | Max. value |
| Mn (S) | 2,750 | 15,000 | 62 | 1,500 |
| Ag (S) | 20 | 2,000 | 0.8 | 7 |
| Ba (S) | 290 | 1,500 | 186 | 2,000 |
| Cu (S) | 45 | 3,000 | 11 | 200 |
| Mo (S) | 6 | 50 | 26 | 1,000 |
| Pb (S) | 820 | 30,000 | 11 | 500 |
| Sn (S) | 36 | 1,500 | ** | 20 |
| As (AA,S) | 1,100 | 15,000 | 480 | 3,000 |
| Sb (AA,S) | 210 | 15,000 | 82 | 1,320 |
| Bi (AA,S) | 5 | 500 | ** | <2 |
| Hg (AA) | 0.1 | 0.21 | 3.7 | >28 |
| Tl (AA) | 0.2 | 0.5 | 11 | 130 |
| Au (AA) | ** | 0.85 | ** | 0.3 |

**Appendix 1.--Description of analyzed rock samples, Morey and Fandango WSA's**

[Abbreviations: FeOx, iron oxide minerals; bx, breccia; rock unit names: Dw, Devonian Woodruff Formation; Ddg, Devonian Devils Gate Formation; Dc, Devonian carbonate rocks undivided; SOs, Silurian or Ordovician dolomite and limestone; Twm, Oligocene tuff of Williams Ridge and Morey Peak]

TND00462--Morey camp, dump picks of vein quartz, pink carbonate, pyrite, plus gray sulfide
TNR00463--Pyrite-sericite altered tuff (Twm)
TND00464--Quartz vein with black Fe-MnOx, some sulfides
TND00465--Vein pieces rich in pink carbonate and fine, dark sulfides
TND00466--Quartz vein, minor FeOx, in argillized tuff (Twm)
TND00467--Chips of argillized tuff with quartz vein, some yellow oxides
TNH00867--Cuttings tan argillized tuff, Page prospect
TNH00868--Cuttings tan argillized tuff
TND00869--Silicified carbonate rock, boxwork filled with FeOx, from dump
TND00870--Milky white quartz vein chunks on dump
TND00871--Black-to-rusty, resinous, massive FeOx, dump
TNR00872--Black-to-tan, oxidized, vein-filling (gossan), porous boxwork filled by oxides in face of small cut
TNR00873--Vein in tuff with vuggy quartz and FeOx
TND00468--Vein material, chiefly quartz (Wist vein)
TNR04036--Highly argillized tuff (Twm)
TNR04037--Vein rich in MnOx
TNR01501--Gray, platey limestone with FeOx and silica on fractures (Dc)
TNR01502--Brick red soil with siliceous, residual fragments, developed in Dc
TNR01503--Gray, silicified limestone with FeOx on fractures (Dw)
TNR01505--Ocher jasperoid in limestone with red FeOx in fractures (SOs)
TNR01506--Red and orange alteration of sandy clastic unit (SOs)
TNR01507--Dark gray, heavy float, barite plus pyrite?
TNR01508--Tan, refractured jasperoid with lacey silica boxworks (SOs)
TNR01509--White barite vein filling, quite pure
TNR01510--White barite vein with FeOx
TNR01511--Barite vein rich in FeOx, cutting limestone (SOs)
TNR01516--Ocher, silicified dolomite, abundant (5%) FeOx (Dc)
TNR01517--Fractured, ocher jasperoid, moderate (3%) FeOx) (Dc)
TNR01519--Fractured jasperoid with silica + FeOx in fractures (Dc)
TNR01520--Black, silicified shale with very fine pyrite (Dw)
TNR01521--Silicified shale (Dw), moderate FeOx on joints
TNR01522--Silicified dolomite bx with red FeOx (SOs)
TNR01523--Hematitic-silicified dolomite in N-S fault (SOs)
TNR01524--Brownish-red FeOx cutting silicified dolomite bx (SOs)
TNR01525--Dolomite bx with silica-FeOx veining
TNR01526--Shattered, orange, silicified shale (Dw), FeOx in matrix
TNR01527--Platey-bedded carbonate, fetid, with yellow FeOx on fractures (Dc)
TNR01528--Silicified, platey carbonate (Dc) with moderate FeOx
TNH01529--Dark gray cuttings of calcareous shale, rusty weathering unit (Dw)
TNH01530--Dark gray cuttings of calcareous shale (Dw)
TNR01539--Gray, chalcedonic quartz veining in Tert. tuff
TNR01540--Gray-to-white, chalcedonic quartz veins and silicified tuff, sparse FeOx
TNR01541--Gray-to-white, chalcedonic quartz veins with films of yellow FeOx
TNR01545--Morey camp, red, altered tuff in disseminate pyrite zone (Twm)

**APPENDIX 1.**--continued

TNR01546--Selected chips of FeOx-rich vein in tuff (Twm)
TNR01547--Limonite-stained tuff in zone of quartz-pyrite stockwork (Twm)
TNR01549--Clay alteration zone in tuff (Twm), selected chips richest in FeOx that generally are sparse
TND01550--Vein pieces from dump, vuggy quartz-pyrite
TND01551--Same dump as 1550, heavy pieces rich in pyrite, quartz, and gray sulfide (high graded)
TND01552--High-graded picks of chunks with galena, sphalerite, and pyrite
TNR01553--Silicified, impure calcareous shale with abundant FeOx (Dw)
TNR01554--Reddish-brown, silicified rib in calcareous shale (Dw)
TNR01555--Silicified, brecciated shale, abundant FeOx (Dw)
TNR01556--Brown-orange, silicified, brecciated shale (Dw)
TNR01557--Silicified, calcareous shale (Dw) with FeOx
TNR01558--Red-brown, silicified, calcareous shale with abundant FeOx (Dw)
TNR01560--Silicified, brecciated, calcareous shale, abundant FeOx (Dw)
TNR01561--Silicified, brecciated, calcareous shale, FeOx in matrix
TNR01562--Oxidized, FeOx-rich vein in dolomite, old adit
TNR01563--As above, visible galena
TNR01564--Fractured, silicified dolomite with FeOx in veinlets, old adit
TNR01565--Ocher, silicified, brecciated shale, moderate FeOx (Dw)
TNR01566--Gray, silicified, brecciated shale, minor FeOx (Dw)
TNR01567--Totally silicified shale bx, moderate FeOx in fractures (Dw)
TNR01568--Silicified shale bx, some resinous FeOx (Dw)
TNR01569--Ocher, silicified shale with FeOx (Dw)
TNR01570--Silicified, platey-bedded carbonate (Dc), abundant FeOx
TNR01571--Brecciated limestone, partially silicified, with earthy FeOx on joints
TNR01572--As 1571, partially silicified, abundant FeOx
TNR01573--Ocher, mostly silicified shale, abundant FeOx (Dw)
TNR01575--Brecciated quartzite, FeOx in joints (in Dc)
TND01576--Top of Red Mountain, Wist adit; quartz vein with MnOx and gray sulfide
TNR01577--Small vein in tuff (Twm), moderate FeOx
TNR01578--Stockwork veining in tuff (Twm), rich in Fe-MnOx
TNR01579--Argillized tuff (Twm) with FeOx, adjacent to glassy dike
TNR01580--Similar to 1579, tuff (Twm) with FeOx in joints
TNR01581--As above, tuff with FeOx in joints
TNR01590--Totally silicified carbonate, yellow-orange FeOx coatings (SOs)
TNR01591--As 1590, moderate FeOx content
TNR01592--Altered siltstone (Trs), red-to-orange FeOx on joints
TNR01593--Silicified, impure carbonate, low in FeOx (SOs)
TNR01594--Silicified, fractured, impure carbonate rock with low FeOx content (SOs)
TNR01595--Incompletely silicified carbonate rock, boxwork of silica + FeOx (SOs)
TNR01597--Brown, altered limestone, some silicification, low FeOx (SOs)
TNR01598--Chalcedony-veined limestone, low FeOx (SOs)
TNR01599--Partly altered dolomite with lacey silica in fractures, low FeOx (SOs)
TNR01600--Gray, laminated shale (Dw), crinkled beds have films of orange, earthy FeOx
TNR01601--Ocher, silicified shale breccia, recemented (Dw)

**APPENDIX 1.**--continued

TNR01602--Ocher, silicified shale (Dw)
TNR01603--Gray, silicified shale, probably some pyrite (Dw)
TNR01604--Fractured-and-veined, silicified shale with yellow-sulphate staining (Dw)
TNR01605--Silicified, laminated shale, crinkled beds, ocher color from moderate content of FeOx (Dw)
TNR01606--Silicified, brecciated shale, picked orange parts (Dw)
TNR01607--Rusty, silicified shale with silica boxworks and moderate FeOx (Dw)
TNR01608--Silicified, brecciated shale, orange color (Dw)
TNR01609--Gray, granular, silicified shale (Dw)
TNR01610--Ocher, mostly silicified shale, with earthy FeOx (Dw)
TNR01611--Fractured, laminated shale (Dw) with silica + FeOx along fractures
TNR01612--Similar to 1611, picked pieces richest in FeOx
TNR01613--Silicified carbonate rock with abundant FeOx (SOs)
TNR01614--Ocher-to-red alteration of carbonate rock with boxworks of silica + FeOx
TND01615--Uncle Sam vein dump, quartz vein pieces with gray sulfide and CuOx stains
TND01616--Siliceous, vein gossan very rich in FeOx
TND01617--Late stages of vein, gray chalcedony cut by tan carbonate
TNR01618--Black, chalcedonic vein filling
TNH01620--Cuttings black, calcareous shale and jasperoid
TNR01621--Chips reddish-orange, massive jasperoid
TNH01622--Cuttings black, calacareous shale and jasperoid
TNR01623--Red-brown jasperoid, a massive replacement of carbonate unit
TNH01624--Black and gray cuttings of calacerous shale and jasperoid
TNR01625--Red-to-orange-brown jasperoid replacing gray limestone
TJ4MP031--Weakly propylitized tuff (Twm)
TJ4MP032--Silicified? and propylitized tuff (Twm)
TJ4MP040--Unaltered, fetid calcite limestone
TJ4MP41A--White jasperoid
TJ4MP41B--Argillized and bleached rhyolite?
TJ4MP41C--Argillized and bleached rhyolite?
TJ4MP042--Silicified, brecciated, heavily limonitic shale?
TJ4MP043--Unaltered, fine-grained dolomite
TJ4MP044--Weakly brecciated and hematitically stained dolomite
TJ4MP045--Fine-grained, sugary limestone with hematite on fractures
TJ4MP46C--Silicified, limonite-stained, brecciated shale (Woodruff Formation)
TJ4MP46D--White silicified? band in shale (Dw)
TJ4MP46E--Limonite-stained, brecciated, silicified shale (Dw)
TJ4MP47A--Chalcedonic jasperoid
TJ4MP47B--Chalcedonic jasperoid
TJ4MP47C--Fe-stained jasperoid
TJ4MP48A--Silicified, brecciated shale?
TJ4MP48B--Hematitic jasperoid
TJ4MP48C--Gossanous, limonitic boxwork silica
TJ4MP49A--Limonitic, silicified conglomerate or breccia
TJ4MP49B--Hematitic jasperoid
TJ4MP49C--Limonitic, gossanous jasperoid
TJ4MP49D--Hematitic, silicified shale?
TJ4MP50A--Limonitic, silicified conglomerate or breccia
TJ4MP50B--Limonite- and hematite-stained conglomerate or breccia

**Appendix 1.**--continued

TJ4MP055--Weakly Fe-stained quartzite breccia
TJ4MP56A--Weakly silicified dolomite
TJ4MP56B--Hematitic, gossanous jasperoid
TJ4MP56C--Limonitic, silicified carbonate?
TJ4MP57A--Limonitic jasperoid
TJ4MP57B--Porous sinter-line silica rock
TJ4MP57C--Limonitic jasperoid
TJ4MP57D--Silicified breccia
TJ4MP05B--Bleached and argillized tuff (Twm)
TJ4MP60A--Limonitic, silicified?, brecciated shale or siltstone
TJ4MP60B--Hematite-stained sandstone
TJ4MP60C--Limonitic, silicified?, brecciated siltstone
TJ4MP60D--Vuggy, opalescent jasperoid
TJ4MP61A--Silicified siltstone
TJ4MP61B--Hematitic, silicified siltstone
TJ4MP61C--Hematitic and limonitic boxwork silica gossan
TJ4MP61D--Limonitic boxwork silica
TJ4MP61E--Geothite-stained boxwork silica
TJ4MP064--Chalcedonic quartz, vein cutting tuff (Twm)
TJ4MP065--Sericitized tuff (Twm)
TJ4MP067--Quartz-pyrolusite? vein cutting argillized tuff (Twm)
TJ4MP67A--Quartz-pyrolusite? vein cutting argillized tuff (Twm)
TJ4MP068--Weakly propylitized tuff (Twm)
TJ4MP69A--Chalcedonic breccia in dolomite
TJ4MP69B--Recrystallized dolomite with hematitic fractures
TJ4MP69C--Limonitic jasperoid or silicified shale
TJ4MP69D--Limonitic dolomite breccia
TJ4MP69E--Vuggy jasperoid
TJ4MP69F--Limonitic, weakly silicified shale
TJ4MP70A--Hematite- and limonite-stained, silicified breccia
TJ4MP70B--Limonitic, silicified shale?
TJ4MP70C--Silicified, brecciated shale
TJ4MP71A--MnO-stained fractures in jasperoid
TJ4MP71B--Chalcedonic jasperoid
TJ4MP71C--Chalcedonic jasperoid breccia
TJ4MP072--Hematitic dolomite breccia
TJ4MP73A--Jasperoid
TJ4MP73B--Weak hematite-stained jasperoid
TJ4MP074--Silicified dolomite
TJ4MP075--Weakly silicified dolomite breccia
TJ4MP076--Heavily Fe-stained dolomite breccia
TJ4MP077--Jasperoid
TJ4MP078--Limonitic, weakly silicified dolomite
TJ4MP079--Silicified pod in dolomite
TJ4MP080--Jasperoid breccia
TJ4MP081--Chalcedony pod in dolomite
TJ4MP81A--Jasperoid breccia
TJ4MP082--Limonitic, gossanous jasperoid
TJ4MP85A--Hematite-stained, silicified dolomite breccia
TJ4MP85B--Silicified dolomite breccia
TJ4MP86A--Limonite and geothite-stained dolomite breccia
TJ4MP86B--Black, sugary jasperoid

**Appendix 1.**--continued

TJ4MP087--Dark red, sugary jasperoid
TJ4MP088--Limontitic, chalcedonic jasperoid
TJ4MP089--Limontitic, silicified, brecciated shale (Dw)
TJ4MP090--Limontitic, silicified, brecciated shale (Dw)
TJ4MP091--Limonite- and hematite-stained jasperoid breccia
TJ4MP092--Hematite- and limonite-stained, silicified shale (Dw)
TJ4MP093--Fe-stained limestone breccia
TJ4MP93A--Weakly limonite-stained, silicified breccia
TJ4MP94A--Vuggy, silicified dolomite
TJ4MP94B--Weakly limonite-stained and silicified sandstone (Dw)
TJ4MP94C--Hematite-stained calcite breccia
TJ4MP095--Chalcedonic, weakly limonite-stained jasperoid breccia
TJ4MP096--Hematitic jasperoid
TJ4MP097--Hematite-stained, silicified mudstone (Dw)
TJ4MP97A--Limonitic jasperoid
TJ4MP098--Limonite- and hematite-stained shale
TJ4MP099--Limonitic, brecciated shale (Dw)
TJMP100A--White, silicified shale (Dw)
TJMP100B--Limonitic, silicified shale (Dw)
TJMP101 --Hematitic gossan in dolomite at mouth of adit
TJMP102 --Silicified, brecciated shale (Dw)
TJMP102A--Hematite-stained, silicified shale (Dw)
TJMP103 --Silicified, limonite- and MnO-stained, brecciated shale (Dw)
TJMP104A--Dark gray, limonite-stained jasperoid
TJMP104B--Dark gray, limonite-stained jasperoid
TJMP104C--Unaltered limestone/dolomite breccia underlying jasperoids
TJMP105 --Dark gray, silicified zone in dolomite
TJMP106 --Limonite-stained, weakly silicified, brecciated shale (Dw)
TJMP107 --Silicified, brecciated shale (Dw)
TJMP108A--Hematite-stained, silicified, brecciated shale (Dw)
TJMP108B--Silicified, brecciated shale (Dw)
TJMP108C--Weak hematite-stained dolomite
TJMP109 --Silicified, brecciated, Fe-oxide-stained shale (Dw)
TJMP110 --Hematitic dolomite breccia
TJMP111A--Silicified, hematitic, brecciated shale (Dw)
TJMP111B--Weakly hematitic, silicified, brecciated shale (Dw)
TJMP112 --Silicified, brecciated shale (Dw)
TJMP113A--Limonitic, silicified shale (Dw)
TJMP113B--Moderately hematitic dolomite underlying shale
TJMP114A--Fine-grained, hematitic jasperoid breccia
TJMP114B--Limonitic jasperoid breccia
TJMP115 --Hematitic dolomite breccia
TJMP116 --Silicified, hematitic, brecciated shale (Dw)
TJMP117A--Vuggy, silicified dolomite
TJMP117B--Hematitic, weakly silicified dolomite
TJMP118 --Silicified, weakly Fe-stained, brecciated shale (Dw)
TJMP118A--Limonitic, silicified, brecciated shale (Dw)
TJMP119 --Hematite-stained dolomite
TJMP120 --Hematite- and limonite-stained jasperoid
TJMP121 --Hematitic, silicified dolomite
TJMP122 --Limonitic jasperoid
TJMP123 --Limonitic, silicified, brecciated shale (Dw)

**Appendix 1.**--continued

TJMP124 --Silicified, hematite- and limonite-stained shale (Dw)
TJMP125 --Gray, silicified sandstone or siltstone (Dw)
TJMP126 --Silicified, limonitic, brecciated shale (Dw)
TJMP127 --Gray, silicified shale or mudstone (Dw)
TJMP128 --Limonitic, sugary jasperoid
TJMP129 --Dark red, fine-grained jasperoid
TJMP130 --Limonitic, silicified, brecciated shale
TJMP130A--Hematitic, weakly silicified, calcareous dolomite
TJMP131 --Weakly limonitic, silicified, brecciated shale
TJMP132A--Limonitic jasperoid
TJMP132B--Limonitic jasperoid
TJMP133A--Heavy limonite-stained, vuggy jasperoid
TJMP133B--Boxwork silica, weakly hematite-stained, silicified dolomite
TJMP134A--Hematitic, fine-grained dolomite
TJMP134B--Hematitic jasperoid
TJMP135A--Limonitic, silicified dolomite?
TJMP136 --Hematitic jasperoid
TJMP136A--Hematitic, fine-grained dolomite
TJMP137 --Limonitic, gossanous jasperoid
TJMP138 --Limonitic jasperoid
TJMP139A--Limonite- and hematite-stained jasperoid breccia
TJMP139B--Hematitic jasperoid breccia
TJMP141 --Heavily Fe-stained jasperoid
TJMP142A--Hematite- and limonite-stained, black jasperoid
TJMP142B--Hematitic, vuggy jasperoid
TJMP143 --Limonitic, fine-grained jasperoid
TJMP143B--Hematite- and limonite-stained, vuggy jasperoid
TJMP144A--Argillized, limonite-stained rhyolite
TJMP144B--Argillized, weakly silicified, limonite-stained rhyolite?
TJMP144C--Argillized, limonite-stained, lithic-rich rhyolite?
TJMP145A--Hematitic jasperoid
TJMP145B--Hematitic, weakly silicified dolomite
TJMP146A--Hematitic, red jasperoid replacing dolomite
TJMP146B--Limonitic jasperoid
TJMP147 --Limonite-stained dolomite
TJMP147A--Red, silicified pod in dolomite
TJMP148 --Hematitic dolomite breccia
TJMP150A--Hematitic breccia or conglomerate
TJMP150B--Limonitic breccia or conglomerate
TJMP151 --Hematitic, silicified breccia or conglomerate
TJMP152 --Hematitic, silicified breccia or conglomerate
TJMP153 --Limonitic, silicified breccia or conglomerate
TJMP154 --Limonitic jasperoid breccia
TJMP155A--Gossanous, silicified, limonite- and hematite-stained, brecciated shale
TJMP155B--Hematitic, silicified, brecciated shale
TJMP155C--Hematitic, silicified, brecciated shale
TJMP156 --Weakly silicified dolomite breccia
TJMP157 --Weakly silicified, hematite-stained dolomite
TJMP158 --Quartz-MnO vein in shear zone cutting tuff (Twm)