



University of Nevada, Reno



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Mineral Resources of the Reno 30 x 60 Minute Quadrangle, Nevada – Online Interactive Map

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This report describes over 700 mines, prospects, and mineral localities in the Reno 30- by 60-minute quadrangle. Over 350 chemical analyses of mineralized samples from the localities and adjacent areas are reported, and a complete list of references is provided. The locations for the localities and analyses can be viewed and queried on the [Online Interactive Map](#). The supporting data are available in [Spreadsheet Format](#) and the [References](#) as a PDF. A record-by-record listing of the [Property Descriptions](#) is also available as a PDF. The online interactive map and digital data files are available online at <http://www.nbmgs.unr.edu/>. To learn how to use some of the tools in the Online Interactive Map review the [Primer On Webmap Use](#).

The Nevada Bureau of Mines and Geology (NBMG) is a research and public service unit of the University of Nevada, Reno and is the State geological survey. Established by the Nevada Legislature as a department within the public service division of the Nevada System of Higher Education, NBMG is part of the Mackay School of Earth Sciences and Engineering within the College of Science and one of the Statewide Programs at the University of Nevada, Reno. NBMG's mission, to provide the State's needs for geological and mineral-resource information and research, is defined in its enabling legislation. NBMG scientists conduct research and publish reports that focus on the economic development, public safety, and quality of life in urban and rural areas of Nevada.

THE AREA

Tingley (1992) showed part or all of 13 metal-mining districts and two industrial minerals districts in the Reno 30- x 60-minute Quadrangle. He also provided a short description of each district and a list of references. The Reno Quadrangle districts are (with a reference to more recent published descriptive summaries that are available online): Castle Peak (Tingley, 1990; Tingley and other, 1999); Clark [Clark-Derby area] (Tingley, 1990); Dogskin Mountain (Tingley, 1990; Tingley and other, 1999); Freds Mountain (Tingley and others, 1999); Jessup (Bonham and others, 1985); Leete (Tingley, 1992); McClellan (Tingley and other, 1999; Tingley and Garside, 1999); Nightingale (Bonham and others, 1983); Olinghouse (Tingley, 1990; Tingley and other, 1999; Tingley and Garside, 1999); Peavine (Tingley, 1990; Tingley and others, 1999); Pyramid (Tingley, 1990; Tingley and other, 1999; Tingley and Garside, 1999); Stateline Peak (Tingley, 1990; Tingley and other, 1999); Talapoosa (Tingley, 1990); Truckee [Fireball] (Bonham and others, 1983); Wedekind (Tingley, 1990; Tingley and other, 1999). All of these reports are available as digital documents at <http://www.nbmng.unr.edu/dox/dox.htm>. See the [References](#) section of this report for citations from this section and the digital data set.

The Reno 30- x 60-minute Quadrangle includes parts of five counties (Churchill, Lyon, Storey, Washoe, and a very narrow strip of Pershing). The mining districts of the Quadrangle are also described in the NBMG Bulletins on the geology and mineral resources of these counties (respectively for the first four: Willden and Speed (1974); Moore (1969), and Bonham and Papke (1969). Additionally, the mineral resources of the area have been described by Sidder (1986), and John and Sherlock (1991). Descriptions of uranium and thorium prospects have previously been reported in Garside and Davis (2006).

THE DATA

Because descriptions of the geology, mining history, and production of the districts are readily available, we do not repeat them in this report. The designation of certain mines or prospects to certain districts in our descriptions may not always correspond to other reports. In some cases, the district designation in the chemistry or sample description tables was described as reported by Tingley (1989; 2005). Additionally, in the online map, we provide the district outlines for the Reno Quadrangle from Tingley (1992). Some prospects can not readily be assigned to any mining district.

For completeness, we include mines and mineralized zones (whether prospected or not) from historical documents (e.g., Hatch, 1867). There may be no evidence on the ground today for these properties; in fact, some may have been mislocated in the original reference, or entirely promotional. Many such localities are described as “not examined during this study” in the Field Examination data field.

The Universal Transverse Mercator (UTM) locations (“UTM_North” and “UTM_East” data fields) in the database are in the NAD27 datum. Most were taken from points selected on 7.5-minute topographic maps of the area. Production information is incomplete or unknown for many properties. We attempted to classify the mines and prospects by mineral deposit type; however, for many small prospects the commodity sought is unknown, and it is not possible to

further categorize it. For some prospects, we use the generic “vein” or “quartz vein.” More information on mineral deposit models is available in Cox and Singer (1986).

The geochemical analyses were done on samples collected from outcrops or mine dumps, and commonly represent the most mineralized appearing rock available at the site. They do not represent average element values for the area of the mine or prospect. Samples in the “nvanal” database are from Tingley (1998); the analytical methods were described in the Read1st file in that digital report. The chemical analyses in the “Carson_Washoe” data base (Tingley, 2005) were performed by commercial laboratories (USML and Acme) as described in Tingley and others (1999, Sec. 3-1). Many samples correspond to a particular described mine or prospect, but some were taken in areas with no workings or areas where no detailed descriptions were done. Therefore, not all geochemical samples correspond to a described prospect site. Additionally, the location data for a few geochemical sample sites may be in error by up to a few hundred meters.

Database Fields

There are four sheets in the Combined workbook: Property Descriptions, Sample Descriptions, Carson_Washoe (geochemical analyses), and nvanal (geochemical analyses). These four sheets (tables) are represented as separate data layers in the online interactive map

PROPERTY DESCRIPTIONS

The data fields used in the Property Descriptions page of the Excel database are described below:

NO. Unique number assigned to each entry.

PROPERTY This field contains the most commonly used name for the mine, prospect, or occurrence.

OTHER NAME(S) Any other, commonly less used, names are included in this field. Also included are alternative spellings. Property names for which there is doubt about the correlation with the primary name are queried.

MINING DISTRICT The mining district where the property is located. Some occurrences do not fall within recognized districts. The name of the mining district listed in this field is based on the principal names used by Tingley (1998a), and the inclusion in a particular district was based on the boundaries in Plate 1 of that report. If no district is listed, the occurrence is outside of known districts.

COUNTY The county where the property is located.

COMMODITIES The metals or other mineral commodities sought.

DEPOSIT TYPE The type of mineral deposit if it could be classified.

QUAD_SHEET The name of the 7.5-minute quadrangle.

OWNERSHIP The name or names of persons known to be associated with the property.

PLSS_LOCATION The Public Lands Survey location (Township, Range, Section, quarter or half section) is listed in this field. Some properties are described as being in more than one section or township. In some cases, the location is given only to a section; commonly, the more exact location is given by the UTM (Universal Trans Mercator) coordinates. Quarter sections are described as ¼ and half sections as ½. Progressively smaller quarter or half sections precede the largest part-section in the description. Comments on the certainty or method of determination of the location may be found in the REMARKS field.

UTM_N; UTM_E The Universal Trans Mercator grid northing and easting. This was determined in a variety of ways: directly from U.S. Geological Survey 1:24,000-scale topographic maps, from digital topographic map software such as TOPO!, or by conversion from longitude-latitude geographic coordinates by use of conversion software (Blue Marble Geographics). The UTM 1000-m grid lines or map edge tics are on all USGS maps published since 1957. Comments on the certainty or method of determination may be found in the REMARKS field. The datum for the UTM coordinates in this report is the North American Datum of 1927 (NAD27). Although the use of this datum is gradually being replaced with the North American Datum of 1983 (NAD83), we use NAD27 because all printed Nevada 7.5' topographic maps use it.

ZONE The UTM zone. All of Nevada is in zone 11.

PRODUCTION The known mineral production is listed. The categories “None,” or “Small,” were used if actual amounts were not known. A queried amount or comment indicated uncertainty.

HISTORY We described in this field what was determined of the history of activity at the property.

DEVELOPMENT The descriptions in this field refer to the mine or prospect workings (shafts, adits, etc.), bulldozer cuts, prospect pits, or other mineral exploration excavations. In some cases, the presence of exploration drill holes is reported. We reported distances in the metric system, although many were originally described in U.S. customary units (feet, inches).

GEOLOGY A brief description of the geology is found in this field. This description was based on the field examiner's report and other references.

REMARKS Comments on other fields were reported in this field. In particular, the site chosen for the UTM location was described. Also, the U.S. Bureau of Mines MAS/MILS [MASMILS] database (U.S. Bureau of Mines, 1995) may be listed as the source of the location data. Comments about the certainty of the location were also reported, including the source we used to determine the UTM locations (UTMs). We also listed any record numbers of property descriptions from the U.S. Geological Survey Mineral Resources Data System (MRDS; Mason

and others, 1996) and the U. S. Bureau of Mines Minerals Availability System/Mineral Industry Location System (MAS/MILS [MASMILS]; U. S. Bureau of Mines, 1995).

SAMPLE_SITE(S) The number or numbers for geochemical samples that were collected in the vicinity of the property were listed. The chemical data and sample descriptions for these and other samples are listed in the three other pages of the Excel Workbook.

REFERENCES Citations in this field commonly include those with any mention of the property or references used for more general geologic information. Other listed sources of information include Washoe County Mining Claim Platts and Assessor's records, U.S. Bureau of Land Management Mining Claim Platts, and aerial photographs in the collections of the Nevada Bureau of Mines and Geology.

FIELD_EXAMINER(S) The name or names of geologists who examined the property.

OCCURRENCE The type of mineral occurrence, metallic or nonmetallic, was listed in this field.

SAMPLE DESCRIPTIONS

This database includes the sample numbers, deposit names, mining district, county, 30- by 60-minute sheet (Reno), 7.5-minute quadrangle name, UTM locations, and a geologic description of the sample.

CARSON WASHOE (Geochem)

The chemical analyses in the "Carson_Washoe" data base (Tingley, 2005) were performed by commercial laboratories (USML and Acme) as described in Tingley and others (1999, Sec. 3-1). See above for a description of the sampling method.

nvanal (Geochem)

Samples in the "nvanal" data base are from Tingley (1998), the analytical methods were described in the Read1st file in that digital report. See above for a description of the sampling method.