

INTRODUCTION

The map shows areas, called provinces, that are defined mainly by the location of groups of deposits, including mines and districts, and subeconomic occurrences, such as prospects, that contain geologically anomalous concentrations of gold well above its crustal abundance; these provinces do not, however, necessarily represent economic value for the metal at this time. Gold is an important, if not critical, metal that has long been a principal medium of monetary exchange as well as an important material used for jewelry and the arts, dentistry, and industry (mainly for space and defense uses). Substitutes for gold include silver, which is produced domestically and is expensive and silver, which is expensive and artifacts more readily in air. Apparent United States' consumption in 1979 of 5.7 million troy ounces was about 6 times domestic production. The United States production was from about 175 mines, most of which are in the western United States. About 5 percent of the gold produced, one-third of the domestic gold was produced as a byproduct of base-metal mining, chiefly for copper. Placer deposits, once a major source of domestic gold, are now only a minor one. An estimated 3.2 million troy ounces of gold was reclaimed from scrap. Imports from Canada, Switzerland (of South African origin), and the U.S.S.R., and industry and government stocks provided the remainder of that which was consumed. Since 1973, consumption has increased 22 percent and is expected to increase at a rate of 3.2 percent through 1985 (all economic data from U.S. Bur. Mines, 1980).

All types of domestic gold deposits, either producing or potentially producible are of continuing national interest, and the main objective of the gold province map is the identification of these broad areas of search for future domestic resources of gold, which are either extensions of known mining areas or potential new source areas that first must be studied and evaluated. The map shows the location and relative sizes of known deposits and subeconomic occurrences. Areas of significant deposits found in provinces are listed in table 1.

Gold occurs in many varied geologic environments (Simons and Prinz, 1973), which group here broadly into six types: I, gold-quartz lodes; II, bonanza gold-quartz-carbonate-barite-fluorite-silver deposits; III, placer concentrations of native gold-of young or fossil land, and of alluvial origin; IV, disseminated stratabound and (or) stratiform gold-pyrite-sulfida deposits; V, disseminated byproduct gold and base-metal sulfides in subvolcanic (porphyritic) intrusives; and VI, enriched fissure vein, replacement, skarn, and massive sulfide gold-base metal sulfide-silica deposits in sediments near intrusive and volcanic source rocks.

Gold was reported to have been discovered and mined from veins and placers in southeastern United States before the Revolutionary War, notably in North Carolina, which remained a major source of United States production until 1850 (Byron, 1936). Following discoveries of easily mined and concentrated placer lode and gold deposits in California in the mid-1800s, the broad Cordilleran belt area of western United States became the scene of several gold rushes. Koschmann and Bergendahl (1968) trace the development of the United States' production and describe the major producing districts. Placers continued as the chief source of the metal until about 1873, when production from discovery and exploitation, increased mining costs, and environmental restraints against water pollution and siltation. The famous bonanza sources (particularly in province 6) were located in the early 1900's. Beginning in 1930 gold was produced mainly as a byproduct of the mining of porphyry copper deposits, and by 1945 byproduct gold was contributing more than 50 percent to the total. In recent years (ca. 1960's) disseminated stratabound deposits of gold (especially in province 2) have become economically important domestic sources.

The map was compiled from published reports (Blatchley, 1903; Gold, 1908; Branner, 1927; Emmons and Groul, 1943; Snelgrove, 1944; Sellards and Evans, 1946; Pardee and Park, 1948; Pearce and Calkins, 1957a, b; Simons and Prinz, 1973; U.S. Geol. Surv., 1973; U.S. Geol. Surv., 1974; U.S. Geol. Surv., 1975; U.S. Geol. Surv., 1976; U.S. Geol. Surv., 1977; U.S. Geol. Surv., 1978; U.S. Geol. Surv., 1979; U.S. Geol. Surv., 1980; U.S. Geol. Surv., 1981; U.S. Geol. Surv., 1982; U.S. Geol. Surv., 1983; U.S. Geol. Surv., 1984; U.S. Geol. Surv., 1985; U.S. Geol. Surv., 1986; U.S. Geol. Surv., 1987; U.S. Geol. Surv., 1988; U.S. Geol. Surv., 1989; U.S. Geol. Surv., 1990; U.S. Geol. Surv., 1991; U.S. Geol. Surv., 1992; U.S. Geol. Surv., 1993; U.S. Geol. Surv., 1994; U.S. Geol. Surv., 1995; U.S. Geol. Surv., 1996; U.S. Geol. Surv., 1997; U.S. Geol. Surv., 1998; U.S. Geol. Surv., 1999; U.S. Geol. Surv., 2000; U.S. Geol. Surv., 2001; U.S. Geol. Surv., 2002; U.S. Geol. Surv., 2003; U.S. Geol. 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Surv., 2578; U.S. Geol. Surv., 2579; U.S. Geol. Surv., 2580; U.S. Geol. Surv., 2581; U.S. Geol. Surv., 2582; U.S. Geol. Surv., 2583; U.S. Geol. Surv., 2584; U.S. Geol. Surv., 2585; U.S. Geol. Surv., 2586; U.S. Geol. Surv., 2587; U.S. Geol. Surv., 2588; U.S. Geol. Surv., 2589; U.S. Geol. Surv., 2590; U.S. Geol. Surv., 2591; U.S. Geol. Surv., 2592; U.S. Geol. Surv., 2593; U.S. Geol. Surv., 2594; U.S. Geol. Surv., 2595; U.S. Geol. Surv., 2596; U.S. Geol. Surv., 2597; U.S. Geol. Surv., 2598; U.S. Geol. Surv., 2599; U.S. Geol. Surv., 2600; U.S. Geol. Surv., 2601; U.S. Geol. Surv., 2602; U.S. Geol. Surv., 2603; U.S. Geol. Surv., 2604; U.S. Geol. Surv., 2605; U.S. Geol. Surv., 2606; U.S. Geol. Surv., 2607; U.S. Geol. Surv., 2608; U.S. Geol. Surv., 2609; U.S. Geol. Surv., 2610; U.S. Geol. Surv., 2611; U.S. Geol. Surv., 2612; U.S. Geol. Surv., 2613; U.S. Geol. Surv., 2614; U.S. Geol. Surv., 2615; U.S. Geol. Surv., 2616; U.S. Geol. Surv., 2617; U.S. Geol. Surv., 2618; U.S. Geol. Surv., 2619; U.S. Geol. Surv., 2620; U.S. Geol. Surv., 2621; U.S. Geol. Surv., 2622; U.S. Geol. Surv., 2623; U.S. Geol. Surv., 2624; U.S. Geol. Surv., 2625; U.S. Geol. Surv., 2626; U.S. Geol. Surv., 2627; U.S. Geol. Surv., 2628; U.S. Geol. Surv., 2629; U.S. Geol. Surv., 2630; U.S. Geol. Surv., 2631; U.S. Geol. Surv., 2632; U.S. Geol. Surv., 2633; U.S. Geol. Surv., 2634; U.S. Geol. Surv., 2635; U.S. Geol. Surv., 2636; U.S. Geol. Surv., 2637; U.S. Geol. Surv., 2638; U.S. Geol. Surv., 2639; U.S. Geol. Surv., 2640; U.S. Geol. Surv., 2641; U.S. Geol. Surv., 2642; U.S. Geol. Surv., 2643; U.S. Geol. Surv., 2644; U.S. Geol. Surv., 2645; U.S. Geol. Surv., 2646; U.S. Geol. Surv., 2647; U.S. Geol. Surv., 2648; U.S. Geol. Surv., 2649; U.S. Geol. Surv., 2650; U.S. Geol. Surv., 2651; U.S. Geol. Surv., 2652; U.S. Geol. Surv., 2653; U.S. Geol. Surv., 2654; U.S. Geol. Surv., 2655; U.S. Geol. Surv., 2656; U.S. Geol. Surv., 2657; U.S. Geol. Surv., 2658; U.S. Geol. Surv., 2659; U.S. Geol. Surv., 2660; U.S. Geol. Surv., 2661; U.S. Geol. Surv., 2662; U.S. Geol. Surv., 2663; U.S. Geol. Surv., 2664; U.S. Geol. Surv., 2665; U.S. Geol. Surv., 2666; U.S. Geol. Surv., 2667; U.S. Geol. Surv., 2668; U.S. Geol. Surv., 2669; U.S. Geol. Surv., 2670; U.S. Geol. Surv., 2671; U.S. Geol. Surv., 2672; U.S. Geol. Surv., 2673; U.S. Geol. Surv., 2674; U.S. Geol. Surv., 2675; U.S. Geol. Surv., 2676; U.S. Geol. Surv., 2677; U.S. Geol. Surv., 2678; U.S. Geol. Surv., 2679; U.S. Geol. Surv., 2680; U.S. Geol. Surv., 2681; U.S. Geol. Surv., 2682; U.S. Geol. Surv., 2683; U.S. Geol. Surv., 2684; U.S. Geol. Surv., 2685; U.S. Geol. Surv., 2686; U.S. Geol. Surv., 2687; U.S. Geol. Surv., 2688; U.S. Geol. Surv., 2689; U.S. Geol. Surv., 2690; U.S. Geol. Surv., 2691; U.S. Geol. Surv., 2692; U.S. Geol. Surv., 2693; U.S. Geol. Surv., 2694; U.S. Geol. Surv., 2695; U.S. Geol. Surv., 2696; U.S. Geol. Surv., 2697; U.S. Geol. Surv., 2698; U.S. Geol. Surv., 2699; U.S. Geol. Surv., 2700; U.S. Geol. Surv., 2701; U.S. Geol. Surv., 2702; U.S. Geol. Surv., 2703; U.S. Geol. Surv., 2704; U.S. Geol. Surv., 2705; U.S. Geol. Surv., 2706; U.S. Geol. Surv., 2707; U.S. Geol. Surv., 2708; U.S. Geol. Surv., 2709; U.S. Geol. Surv., 2710; U.S. Geol. Surv., 2711; U.S. Geol. Surv., 2712; U.S. Geol. Surv., 2713; U.S. Geol. Surv., 2714; U.S. Geol. Surv., 2715; U.S. Geol. Surv., 2716; U.S. Geol. Surv., 2717; U.S. Geol. Surv., 2718; U.S. Geol. Surv., 2719; U.S. Geol. Surv., 2720; U.S. Geol. Surv., 2721; U.S. Geol. Surv., 2722; U.S. Geol. Surv., 2723; U.S. Geol. Surv., 2724; U.S. Geol. Surv., 2725; U.S. Geol. Surv., 2726; U.S. Geol. Surv., 2727; U.S. Geol. Surv., 2728; U.S. Geol. Surv., 2729; U.S. Geol. Surv., 2730; U.S. Geol. Surv., 2731; U.S. Geol. Surv., 2732; U.S. Geol. Surv., 2733; U.S. Geol. Surv., 2734; U.S. Geol. Surv., 2735; U.S. Geol. Surv., 2736; U.S. Geol. Surv., 2737; U.S. Geol. Surv., 2738; U.S. Geol. Surv., 2739; U.S. Geol. Surv., 2740; U.S. Geol. Surv., 2741; U.S. Geol. Surv., 2742; U.S. Geol. Surv., 2743; U.S. Geol. Surv., 2744; U.S. Geol. Surv., 2745; U.S. Geol. Surv., 2746; U.S. Geol. Surv., 2747; U.S. Geol. Surv., 2748; U.S. Geol. Surv., 2749; U.S. Geol. Surv., 2750; U.S. Geol. Surv., 2751; U.S. Geol. Surv., 2752; U.S. Geol. Surv., 2753; U.S. Geol. Surv., 2754; U.S. Geol. Surv., 2755; U.S. Geol. Surv., 2756; U.S. Geol. Surv., 2757; U.S. Geol. Surv., 2758; U.S. Geol. Surv., 2759; U.S. Geol. Surv., 2760; U.S. Geol. Surv., 2761; U.S. Geol. Surv., 2762; U.S. Geol. Surv., 2763; U.S. Geol. Surv., 2764; U.S. Geol. Surv., 2765; U.S. Geol. Surv., 2766; U.S. Geol. Surv., 2767; U.S. Geol. Surv., 2768; U.S. Geol. Surv., 2769; U.S. Geol. Surv., 2770; U.S. Geol. Surv., 2771; U.S. Geol. Surv.,