GEOLOGICAL SURVEY OF WYOMING

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MINERAL REPORT #MR 82-8

MISCELLANEOUS FIELD NOTES AND ASSAY REPORTS ON MINERALIZED RED BED NUGGET SANDSTONE IN THE OVERTHRUST BELT, WYOMING

by
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1982

At numerous localities in the overthrust belt of western Wyoming, the Nugget Sandstone is mineralized in copper, silver and zinc. At each of these localities, the mineralization lies near the contact of the upper Nugget Sandstone with the overlying Gypsum Spring Member of the Twin Creek Limestone, and appears to be structurally controlled. At the Griggs Mine in the Lake Alice District (Figure 1), mineralization occurs in fractures near the top of an anticline in the Nugget Sandstone. Mineralized sandstone appears to be about 300 feet thick at this locality.

South of the Griggs Mine, the Ferney Gulch Mines are developed into fracture Nugget Sandstone (Figure 2). A selected sample of bleached copper stained sandstone from the easternmost Ferney Gulch adit assayed 1.11 percent copper and 0.52 ounces per ton in silver (Figure 3). Another sample collected from the Spring Lake Creek adit (Figure 4) was assayed. The Spring Lake Creek adit is about 80 to 100 feet in length in Nugget Sandstone that is bleached white and weakly mineralized. Much of the mineralization is controlled by a 3 to 4 inch wide fracture in the roof of the mine. Sample SL82-6 collected from the Spring Lake Creek mine dump was a weakly malachite stained bleached sandstone sample and assayed 0.25 percent copper and 0.005 percent zinc (Figure 3). The Coantag prospect south of Spring Lake Creek in sec. 36, T28N, R117½W, occurs as a small collapsed adit in weakly mineralized Nugget (Figure 4).

In Teton County, west of the Snake River, a sample of malachite-stained bleached Nugget Sandstone was collected on the north flank of Cabin Creek Campground (Figure 5). The sample also contained limonite pseudomorphs. The sample (CC82-9) ran 0.15 percent copper and 0.002 percent zinc (Figure 3).

Other localities that were not visited by me, but reported to contain mineralized Nugget include Green River Lakes area (Figure 6), Cabin Creek and Halfturn Creek on the Clause Peak quadrangle (Figure 7).

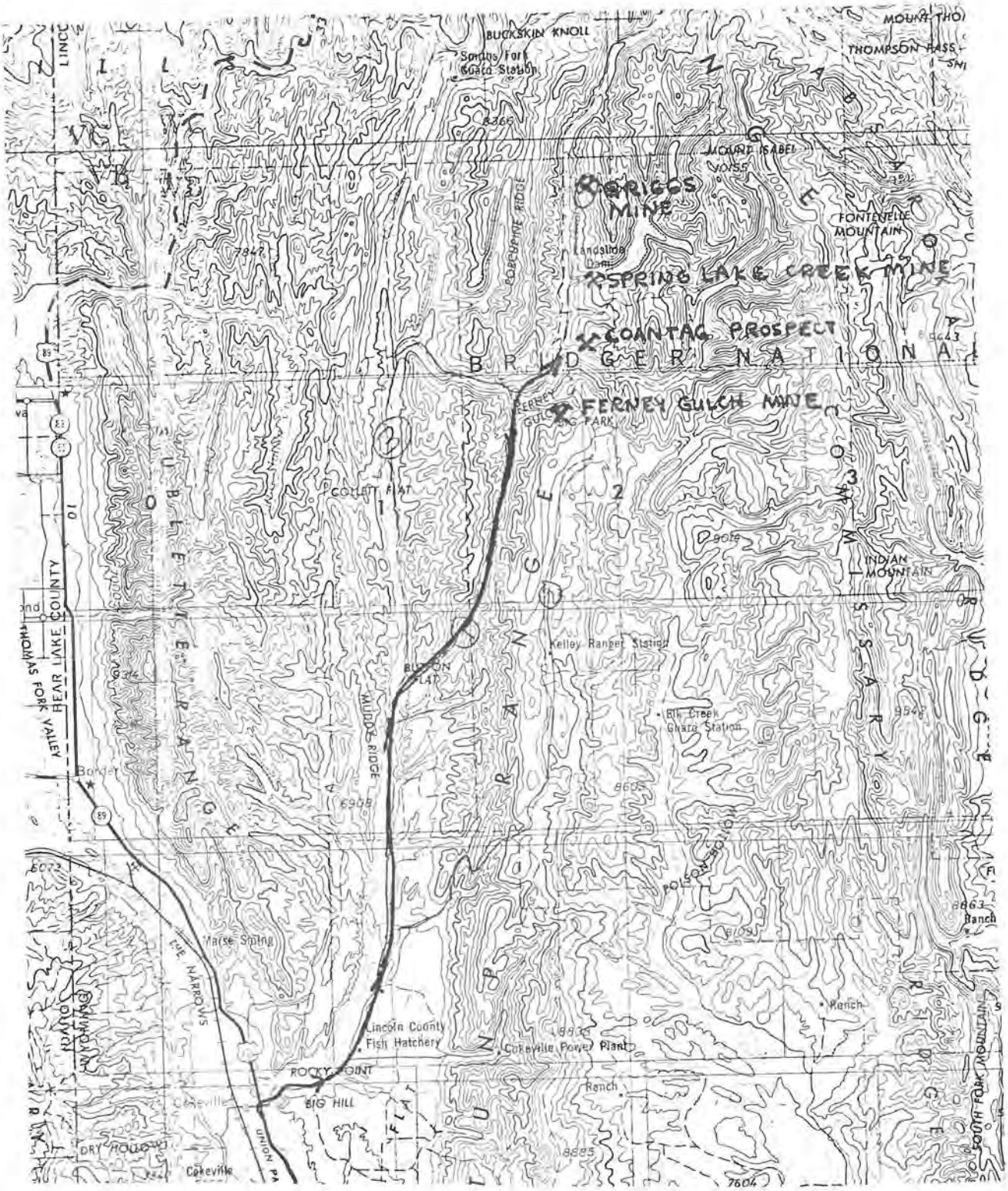

Figure 1. Location map of the Lake Alice District (base map U.S. Geological Survey Preston, Idaho; Wyoming AMS sheet).

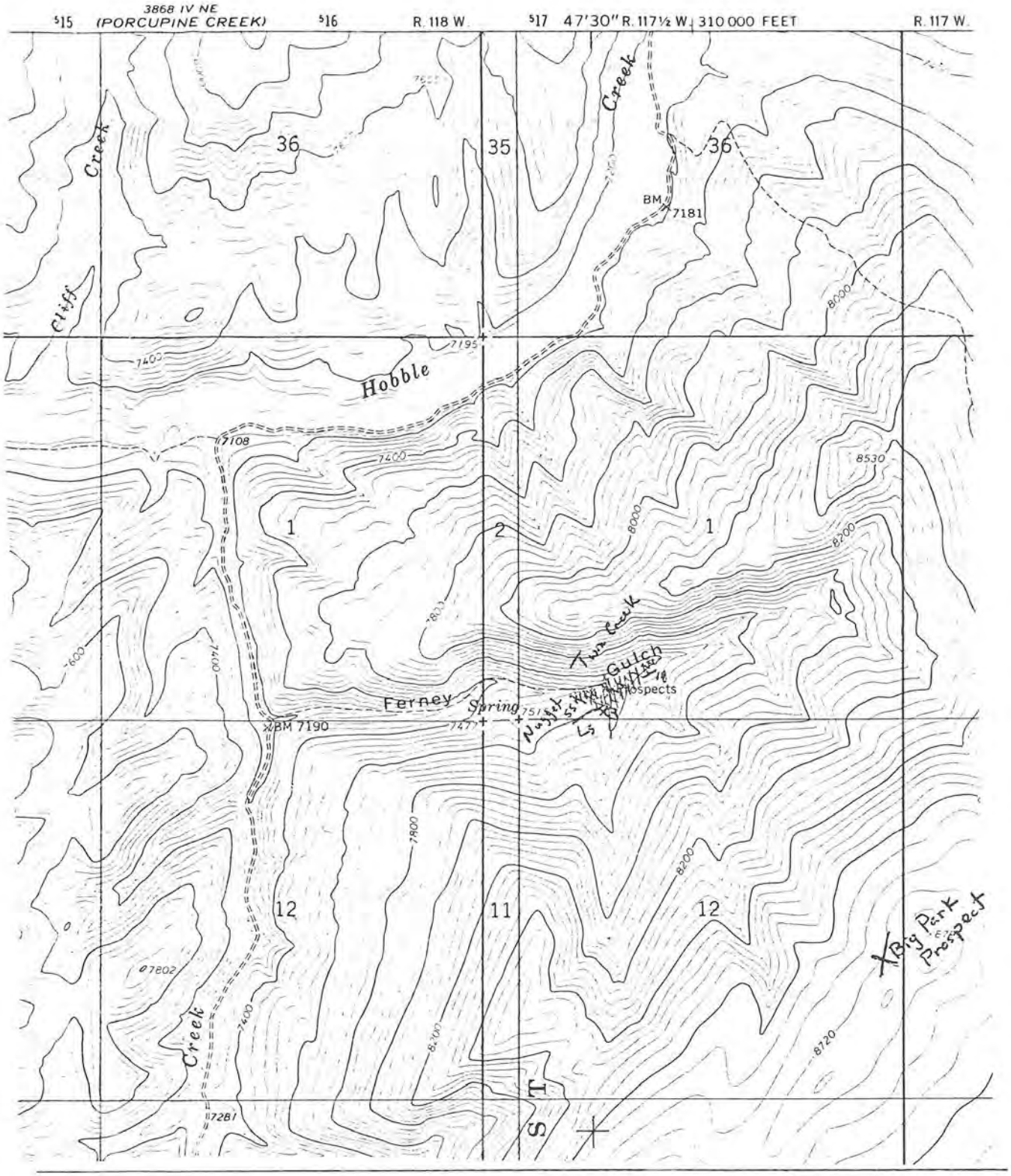

Figure 2. Location map of the Ferney Gulch mines (base map U.S. Geological Survey Big Park 7½-minute quadrangle).

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Laramie, WY 82071

Request No. 1340-063
Date: 13 October 1982

REPORT OF ANALYSIS - Samples are mineralized Nugget Sandstone

Customer ID		CC82-9 (Cabin Creek)	SL82-6 (Spring Lake Creek)
Lab No.		9814	9815
Copper	mg/Kg	1530	2500
Silver	oz/ton	<0.01	<0.01
Zinc	mg/Kg	23.3	46.2

23.3 mg/kg = 0.0023% = 23 ppm

REPORT OF ANALYSIS

Request No. 1242-063
Date: 23 July 1982

Customer ID		Ferney Gulch FG-1	Bear Lodge BL-1-a	Bear Lodge BL-2 Block Mine	Mineral Hill MH-82-1
Lab No.		9074	9075	9076	9077
Gold	oz/ton	--	0.02	<0.01	0.01
Silver	oz/ton	0.52	--	--	1.25
Copper	%	1.11	--	--	--
Zinc	mg/Kg	137	--	--	--
Cobalt	mg/Kg	63.3	--	--	--

Figure 3. Assay report on the Ferney Gulch, Spring Lake Creek, and Cabin Creek Campground samples.

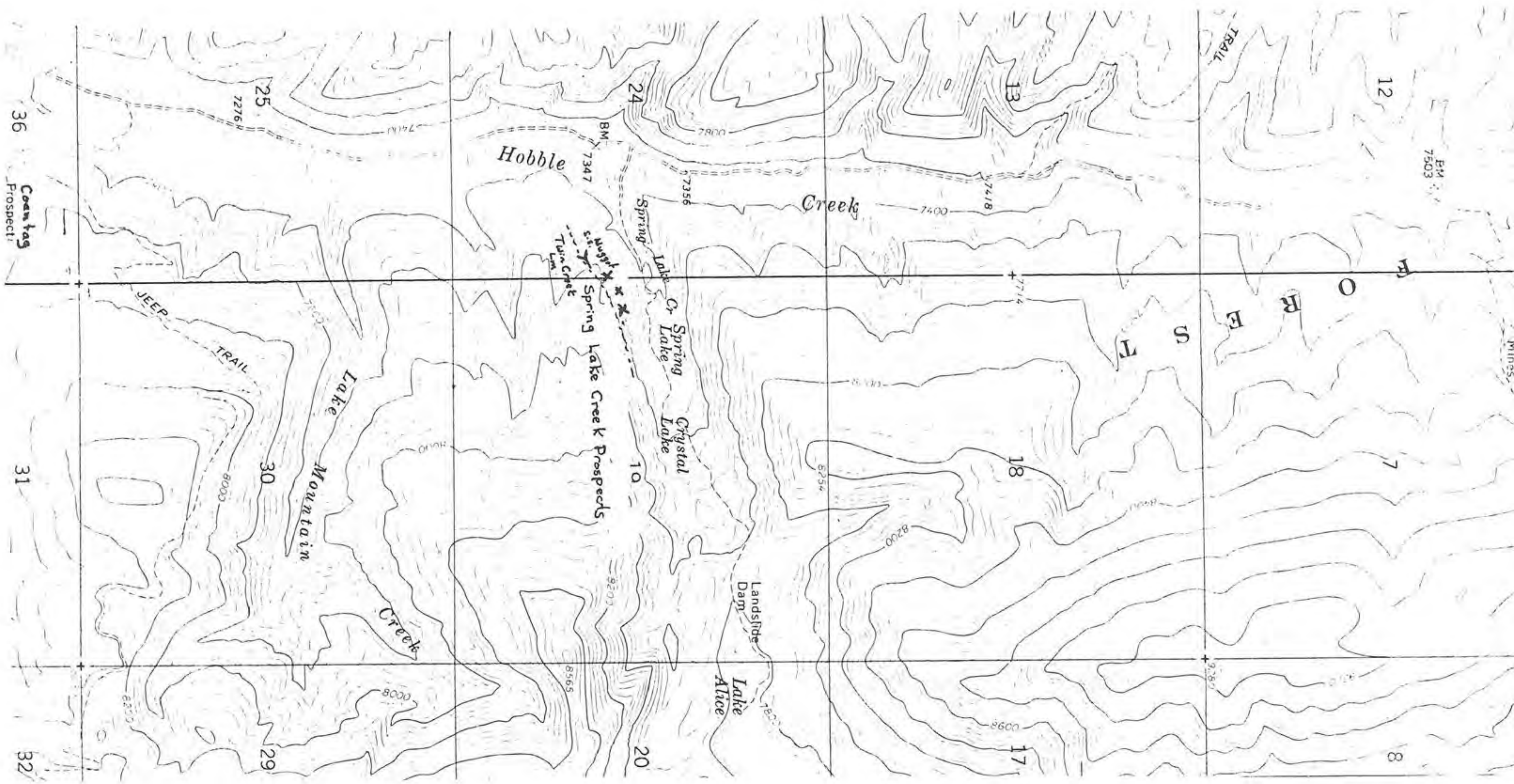

Figure 4. Location map of the Spring Lake Creek Mine (base map U.S.Geological Survey Porcupine Creek 7½-minute quadrangle).

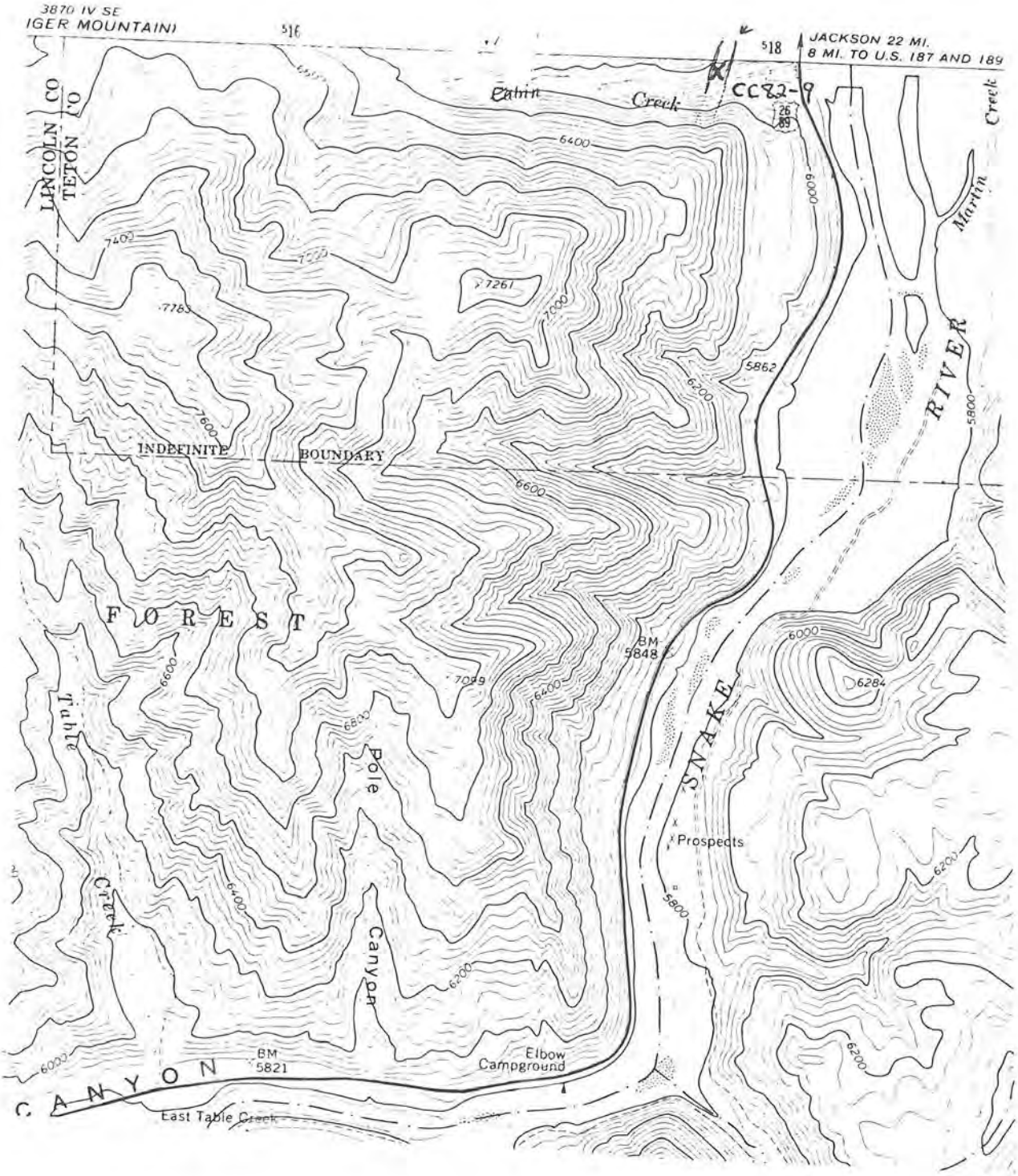

Figure 5. Location map of the Cabin Creek Campground prospect (base map from U.S. Geological Survey Pine Creek 7½-minute quadrangle).

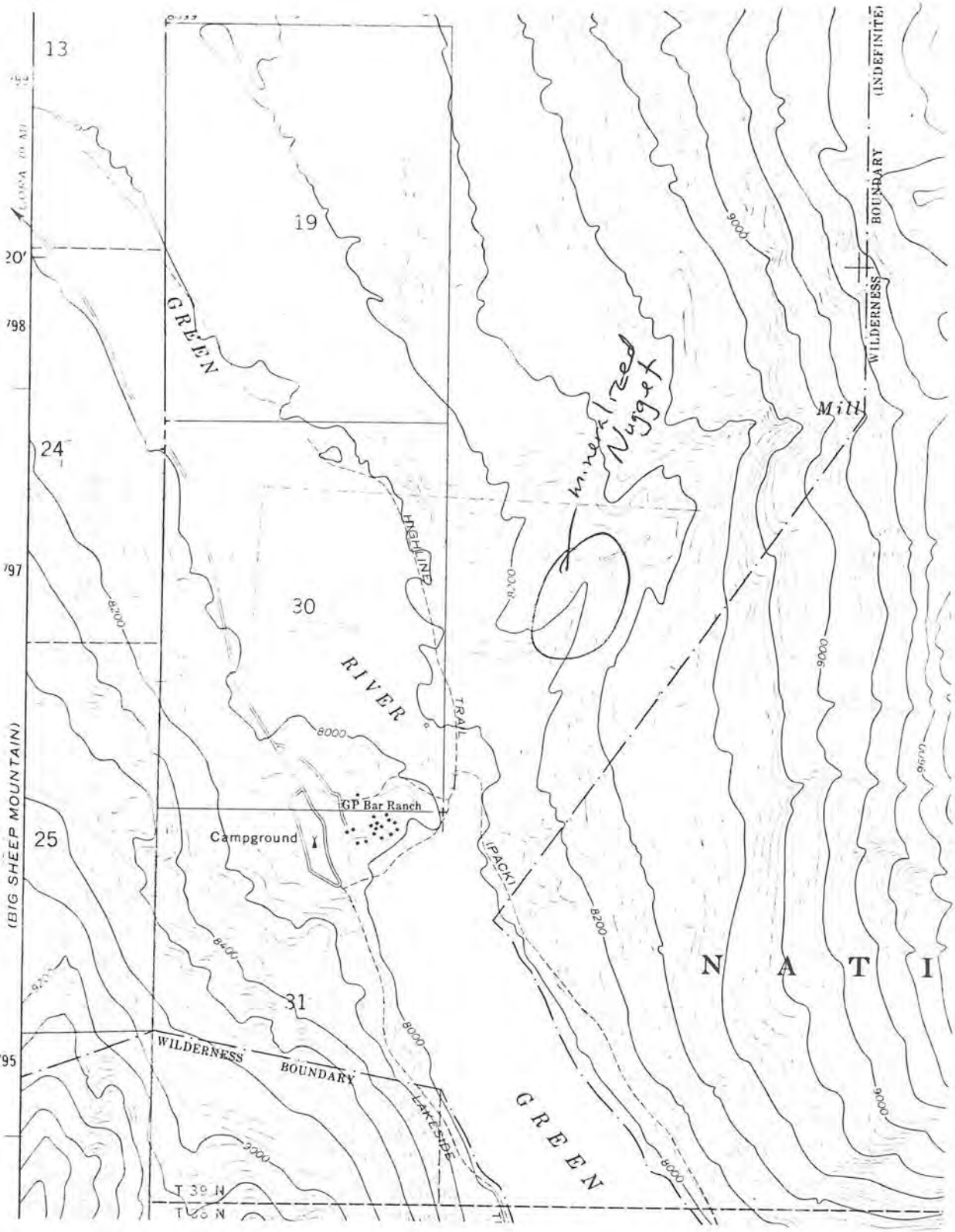

Figure 6. Location map of the Green River Lakes prospect (base map from U.S. Geological Survey Green River Lakes 7½-minute quadrangle).

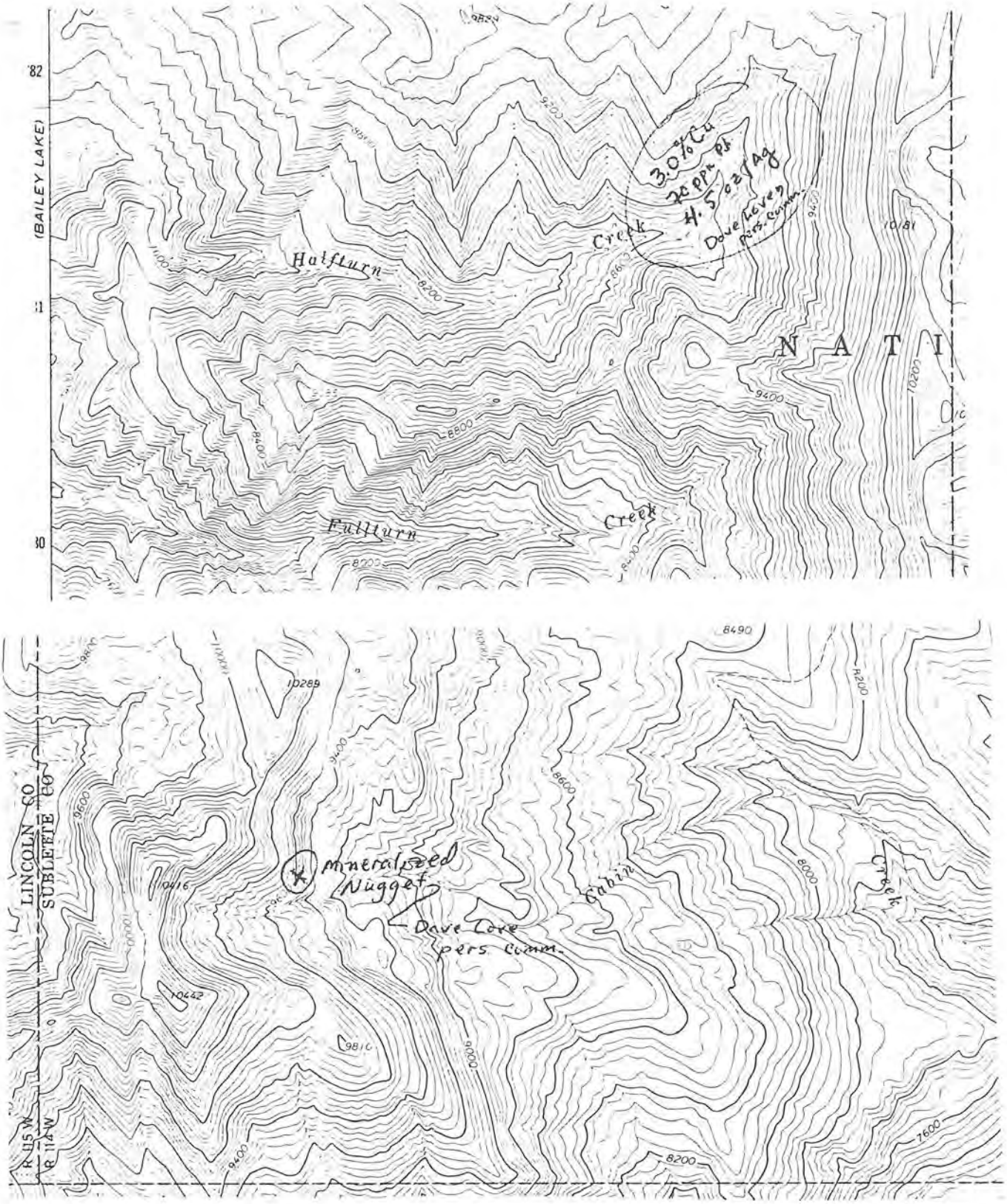

Figure 7. Location map of Cabin Creek and H lfturn Creek prospects (base map from U.S. Geological Survey Clause Peak 7½-minute quadrangle).