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James Doyle Sell Mining Collection

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ASARCO

FILE
JDS
ASARCO Incorporated

NOV 25 1991

SW Exploration

Ray Complex

Ray Operations

November 19, 1991

Jim Sell, Manager
ASARCO Incorporated
Southwest United States Division
P. O. Box 5747
Tucson, AZ 85703

Dear Jim:

As I have discussed with you on the phone, I visited a prospect belonging to Bruce Griffith of Kearny. The prospect is actually in two parts, a gold anomaly and a copper anomaly in T4S R13E. Both are low grade but quite extensive. Neither have drilling by Mr. Griffith.

The gold anomaly is in Section 4 and 9, and consists of a number of surface samples taken rather randomly which show gold from .02 to .8 ppm. One sample is reported verbally at 3 ppm. Sal Anzolone and I collected two samples in the anomalous area which ran .07 and .2 ppm. Wombat Exploration conducted exploration in the 1970's and early 80's which defined a gold anomaly of greater extent, but of unknown magnitude. The geologists involved in that exploration are reported to be attempting to get Cyprus interested in the area.

The Griffith copper anomaly is in Sections 17, 18, 19, and 30. Cornwall and Krieger, of the USGS note the extension of the anomaly in Section 7, 8, and 9. Individual outcrops appear to be small and associated with the contact of the Tea Cup granodiorite porphyry and the Ruin granite. Extensive drilling has been undertaken in Section 8 and 9.

I visited the outcrops in Section 18, 19, and 30. There is a very interesting occurrence of oxide copper in the contact zone of the Tea Cup granodiorite porphyry with Ruin granite. Small oxidized copper outcrops occur in a zone approximately two miles in length. The highest grade is found where copper rich veins abut against a diabase dike. Samples taken by spooning up material in a 25-foot square area have copper grades were 0.2 and 1.6 percent. All of the copper occurrences are small, but the extensive outcrop length of the anomaly should be noted.

Numerous prospect pits and dozer trenches have been dug on veins and along the ridges. Oxide copper stained rock was in evidence over an area approximately 2 miles long an 1000 feet wide. No drill pads were seen, although it was obvious that considerable surface sampling had been done in the past. Numerous drill sites were noted along the gaudy fissure gossans to the northeast in Sections 8 and 9. With the emphasis on oxide deposits for development, I personally feel that these occurrence are of some interest.

The zonation would definitely be characteristic of the low sulfide root zone of a porphyry deposit. The copper is probably of overall low grade and oxidation probably of shallow extent.

I have outlined the two areas, gold and copper, on the enclosed USGS Grayback quadrangle sheet and included the write-up from that publication. This area has been examined many times before so the extensive copper and low-grade gold may be of no interest, but since I visited the area I felt I should report my observations.

ECJ/rb

A handwritten signature in cursive script, appearing to read "Edward John", with a long horizontal flourish extending to the right.

cc: B. K. Malone
 R. L. Gagliano
 S. F. Johnsen
 S. A. Anzalone

PROSPECT.ECJ

GEOLOGIC MAP OF THE GRAYBACK QUADRANGLE, PINAL COUNTY, ARIZONA

By H. R. Cornwall and M. H. Krieger

GENERAL GEOLOGY

The Pinal Schist, of Precambrian X age, is the oldest formation that crops out in the Grayback quadrangle. The east half of the quadrangle is largely underlain by the Ruin Granite, of early Precambrian Y age, which intruded the Pinal Schist. This intrusive relationship is evident in other, nearby areas, the Sonora quadrangle, for example (Cornwall and others, 1971). The Ruin Granite was intruded by diabase dikes and sills of late Precambrian Y age. The Precambrian rocks have been intruded by the Tortilla Quartz Diorite of Late Cretaceous age and the Tea Cup Granodiorite, a large Paleocene pluton. These two plutons have themselves been intruded by Paleocene and younger Tertiary dikes of andesite, rhyodacite, quartz latite, and rhyolite. On the basis of intrusive relationships, most of the dikes are dated as Paleocene and younger; however, two types (TKmr and TKrh) do not intrude the Tea Cup Granodiorite and may therefore be older than the others. The dikes diminish in number and terminate westward across the quadrangle. Most have east-west trends with steep to vertical dips, but some change trend to northwest in the southeastern quarter of the quadrangle.

The Whitetail Conglomerate, a gently eastward dipping Oligocene conglomerate in the northwest corner of the quadrangle, unconformably overlies older rocks, is cut by younger rhyolite dikes, and is overlain by younger flows. A graben in Ripsey Wash, along the eastern edge of the quadrangle, contains east-dipping conglomerate, sandstone, and tuff. These terrestrial deposits were derived from surrounding highlands as the basin subsided during the early Miocene. In the Quaternary, gravels have been shed westward onto an alluvial plain from the higher, central part of the quadrangle. The Gila River, a major regional stream, flows west across the northern part of the quadrangle and is flanked by older Quaternary gravel terraces.

ECONOMIC GEOLOGY

A number of fissure zones with limonite, quartz, and, in many places, copper oxides crop out in the east half of the quadrangle. The zones dip steeply, range in strike from east-northeast through east to west-northwest, and transect most of the rocks in the area, including the Ruin Granite, diabase sills and dikes, Tea Cup Granodiorite, Tortilla Quartz Diorite, and rhyodacite dikes. Many of the zones have been explored by pits, trenches, and shafts, and a few by drill holes.

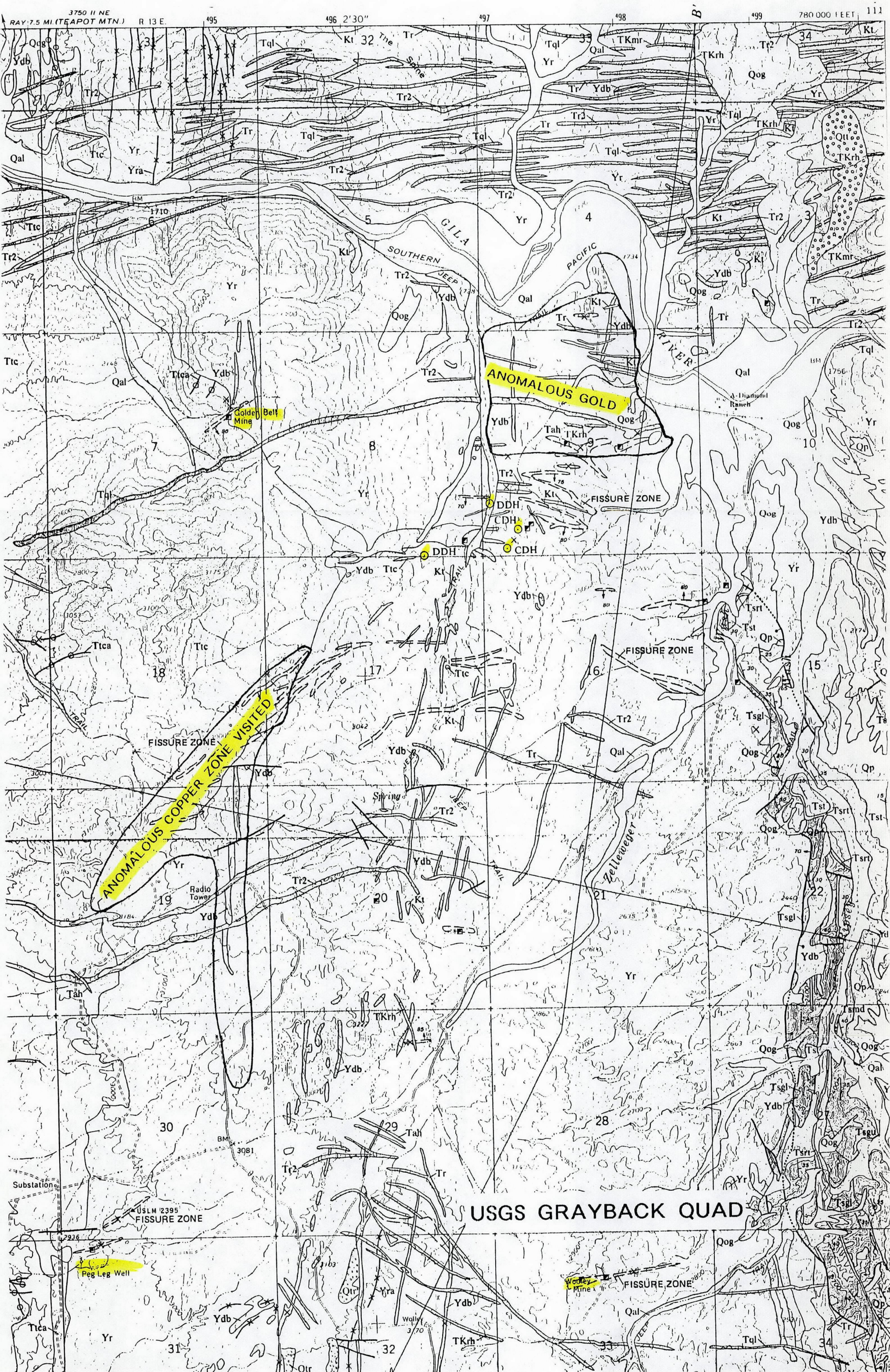
The most intensive exploration has been in secs. 8 and 9, T. 4 S., R. 13 E., an area where a steeply dipping protrusion of the Tea Cup Granodiorite, roughly 500 feet thick, extends eastward more than half a mile into the Ruin Granite. The deposit indicated on the map by a shaft in the southeast corner of sec. 8, T. 4 S., R. 13 E., is reported to contain copper and molybdenum sulfides. It has been explored by several mining companies. There is abundant chalcocite (Cu_2S) and pyrite (FeS_2) on dumps near two shafts located 1,600 feet east of the shaft mentioned above. Several limonitic shear zones that extend north of these two shafts for half a mile have been explored by pits and shafts. The Tea Cup Granodiorite in secs. 7 and 18, T. 4 S., R. 13 E., contains widespread disseminated malachite, chrysocolla, and limonite, indicating the original presence of copper and iron sulfides.

The Golden Bell mine in the NE $\frac{1}{4}$ sec. 7, T. 4 S., R. 13 E., explored northeast-trending, steeply dipping fissure zones, 1-5 feet thick, that on the surface contain chrysocolla, malachite, limonite, and quartz. The Wooley mine in the N $\frac{1}{2}$ sec. 33, T. 4 S., R. 13 E., consists of a shaft, adit, and opencuts that explored a steeply dipping east-west-trending fissure and breccia zone half a mile long and 50-200 feet wide. Outcrops of the zone contain disseminated chrysocolla, malachite, limonite, and quartz. A shaft and several pits explore two east-trending, vertical shear zones in the SW $\frac{1}{4}$ sec. 30 and NW $\frac{1}{4}$ sec. 31, T. 4 S., R. 13 E. These zones contain 1- to 5-foot veins of quartz with chrysocolla, malachite, and limonite. Pits, trenches, and a diamond drill hole in the SE $\frac{1}{4}$ sec. 10, T. 5 S., R. 13 E., explore fissure zones containing malachite, chrysocolla, and limonite.

The deposits described above are the most notable ones explored in the quadrangle. Copper and molybdenum were the principal metals found. Other mineralized areas are indicated on the map by additional fissure zones and exploration pits and trenches. There is no recorded production of copper or other metals from this quadrangle.

REFERENCES CITED

- Banks, N. G., Cornwall, H. R., Silberman, M. L., Creasey, S. C., and Marvin, R. F., 1972, Chronology of intrusion and ore deposition at Ray, Arizona—Part I, K-Ar ages: *Econ. Geology*, v. 67, p. 864-878.
- Banks, N. G., and Stuckless, J. S., 1973, Chronology of intrusion and ore deposition at Ray, Arizona—Part II, Fission-track ages: *Econ. Geology*, v. 68, p. 657-664.



June 17, 1987

J. D. Sell

Salas Properties
Ripsey Wash Area

Pinol Co, AZ

On May 20, 1987 I visited the area in the vicinity of the Ripsey Wash, T5S, R13E with Mr. Frank Salas. Mr. Salas holds claims in this area independently and other claims he holds an interest with other individuals.

The area was examined by Mr. G.W. Pickard in early 1979 (Aa-16A.13.0A) Tortilla Mountains Area. At that time the property was not of interest to the company.

The only additional data I obtained were the three (3) logs of holes drilled in Section 11, T5S, R13E, data from an I.P. and resistivity survey and a technical paper written approximately in the early 1900's. In summary, no significant data was added to make the property interesting enough for any further exploration at this time.

WDG:mek

W. D. Gay
W. D. Gay

ASARCO

Exploration Department
Southwestern United States Division

June 17, 1987

Mr. Frank Salas
P.O. Box 878
Mammoth, AZ 85716

Dear Mr. Salas:

We are returning the data, which you kindly loaned us on your properties near Ripsey Wash.

The company is not interested in any exploration in the area at this time. We wish to thank you for bringing your properties to our attention and will keep your properties in mind should future exploration be warranted.

Very truly yours,

William D. Gay
William D. Gay
Land Engineer

WDG:mek
Encs.

cc: J.D. Sell

4/8/87

Jim:

Mr. Frank F. Salas called me yesterday about a property he has some 15 miles south of the Ray Pit. (Copper)

Told him I would pass message on to you —

Frank F. Salas

1-487-2058 (Mammoth)

He is home in the P.M.
after lunch.

Checked microfiche — he does have unpatented claims in the area.

W. D. Gray

WDG: Salas called 4/30 in AM to say that he had map, drill data, etc on the property from the Conoco days. Sees 9, 14, 15, Ripsey Wash area.

Should probably go by & see him & the property. If interesting, check files, & see Ed Maguire as this is in his Ray backyard.

Jim