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James Doyle Sell Mining Collection

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AMERICAN SMELTING AND REFINING COMPANY
Tucson Arizona

September 10, 1969

W.E.S.

SEP 15 1969

MR. WES
READ AND RETURN _____
PREPARE ANSWERS _____ HANDLE _____
FILE ← INITIALS _____

J. H. C.

SEP 11 1969

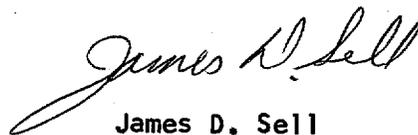
TO: Mr. J.H. Courtright

FROM: Mr. J.D. Sell

Providencia Group
Ko Vaya Hills
Papago Indian Reservation
Pima County, Arizona

W. Farley brought to my attention a report by Hill (1931) in the ASARCO files, on some copper-bearing porphyry located in the Providencia Group of claims northwest of Sells, Arizona. Bob Edmiston was given the basic report and a list of U of A theses to check and he in turn has submitted the following report on his examination and sampling. Additional research in the Stebbins Papago Report determined that Anaconda drilled two holes in the area during 1952 with average assays of 0.06% Copper and low silver values. Both Anaconda and Stebbins conducted geochemical and geophysical studies and concluded that further studies were not warranted at the time.

Edmiston's sample results confirm interesting values in restricted shear zones and quartz veining but low values exist elsewhere and pervasive alteration is lacking. No additional studies on the group is expected.


James D. Sell

JDS:ir

September 10, 1969

TO: J.D. Sell

FROM: R.C. Edmiston

Location of Providencia
Group of Claims
Pima County, Arizona

Summary

At your request I made a survey of the Ko Vaya Hills area on August 18, 1969 in an attempt to locate the Providencia Group of Claims described by H.P. Hill in a report written in 1931. On the basis of the topographic and geologic descriptions in the report the area described appears to be located on the eastern flank on the Ko Vaya Hills, 2500 to 4000 west of the Old Picacho Mine. (See map on Attachment A).

The area appears as described by Hill and later by J.A. Mackallor in a University of Arizona Master's Thesis (1957) with mineralization restricted to quartz veins and narrow shear zones. No evidence of pervasive alteration in outcrop or float was noted in this brief examination.

Location and Access

Hill's report describes the Providencia Group of Claims as covering "....." a series of hills at the foot of a more abrupt ridge, which hills appear to be made up of a rhyolite flow, intruded by a monzonite porphyry, the higher elevations being porphyry." Hill also describes the group as being located about one mile off the Tucson-Ajo Road, twelve miles beyond Sells. This refers to the old dirt road between Tucson and Ajo rather than the present paved one. From these descriptions it appears that the claims were located on the eastern flank of a north trending ridge in the Ko Vaya Hills, R.4E., T.16S., as shown on the accompanying index map.

The old Tucson to Ajo highway, shown on most of the topographic and geologic maps, is no longer maintained and is washed out in several places. The presently maintained dirt road to Ko Vaya is shown on state highway maps and joins the Tucson-Ajo highway west of Sells, Arizona.

Geology and Mineralization

Rock units in this area consist of a Cretaceous Andesite intruded by a Laramide(?) porphyry called the Ko Vaya Alaskite.

Mineralization is restricted to shear zones in the porphyry and quartz veins in the andesite. A sample of quartz vein fragments taken from the old Picacho Mine dump contains 4.26 ozs. of silver while fragments of wall rock from the same dump show only 0.06 ozs. similarly a sample taken from a typical unveined andesite outcrop contained only 0.06 ozs. of silver. A sample taken from a shear zone in the porphyry contained plus 1000 ppm copper and lead and 0.75 ozs. silver. However, a sample from an unsheared alaskite outcrop contained only 0.05 ozs. silver and traces of the base metals.

SAMPLING

Five samples were taken for representative values in the area. The sample description is listed below and the Hawley & Hawley assay-geochem results are tabulated on the Attachment B.

| <u>Sample No.</u> | <u>Description</u> |
|-------------------|---|
| KV 1 | Ko Vaya Alaskite |
| KV 2 | Vein Quartz from Picacho Mine Dump |
| KV 3 | Wall rock (Diabase?) from Picacho Mine Dump |
| KV 4 | Shear zone in Ko Vaya Alaskite |
| KV 5 | Picacho Andesite |

T. 15 S.

Probable location of Providencia Claims

5'

T. 16 S.

32'00"
112'00'

R. 4 E.

Topography by C.A.Ecklund, Adolph Fankhauser,
S.S.Evans and R.H.Moore
Surveyed in 1937

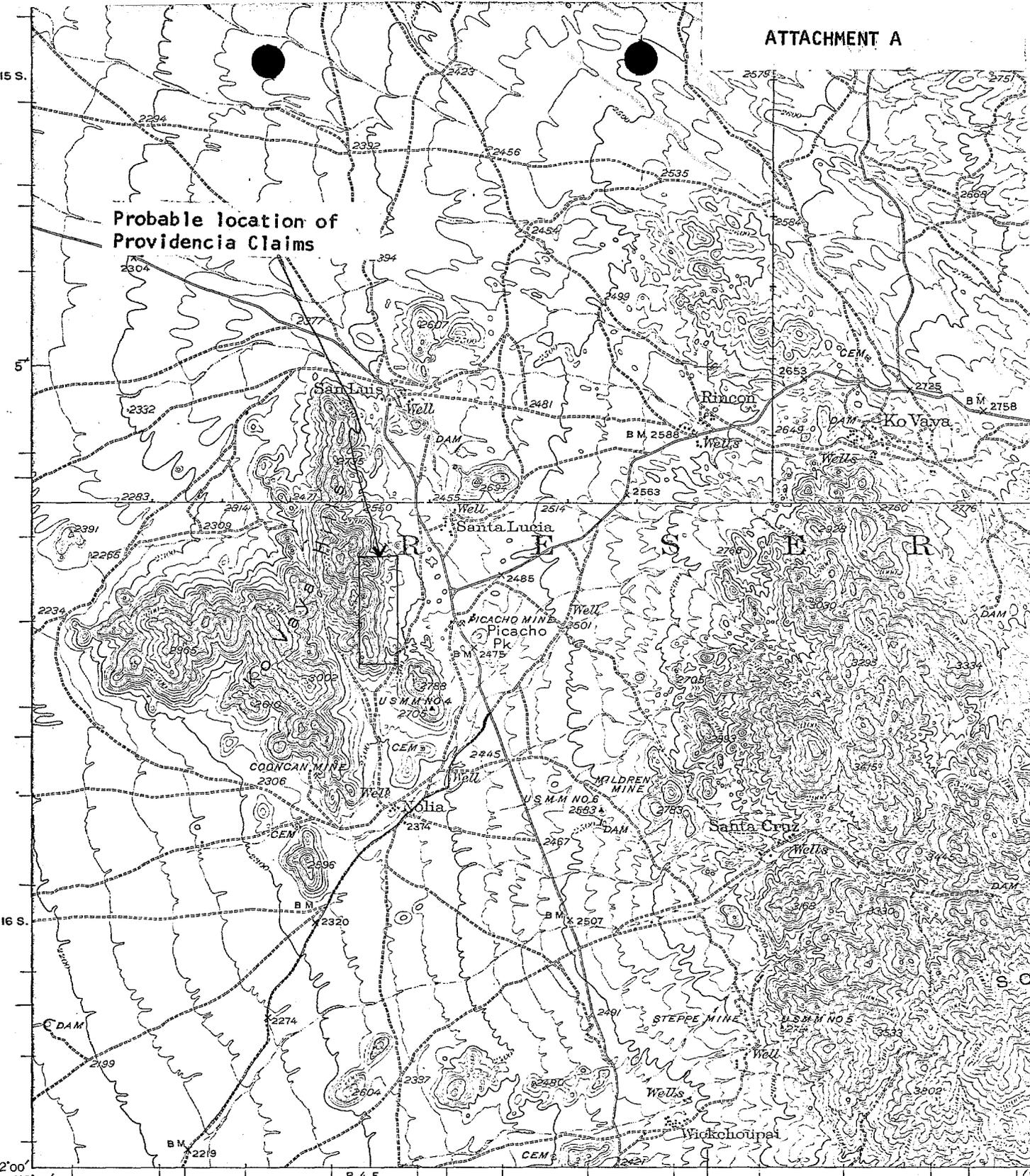


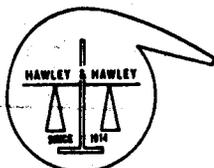
APPROXIMATE MEAN
DECLINATION, 1937



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ASSAYERS AND CHEMISTS, INC.

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TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

| IDENTIFICATION | Gold ozs. | Silver ozs. | Lead % | Copper % | Zinc % | Mo. % | | | |
|----------------|--------------|----------------|-----------|-------------|-----------|----------|-------------------------------|--|----------|
| | | | ppm | ppm | ppm | ppm | | | |
| KV-1 | NII | 0.05 | 16 | 70 | 16 | < 5 | | | |
| KV-2 | NII | 4.26 | 64 | 740 | 106 | < 5 | | | |
| KV-3 | NII | 0.06 | 26 | 46 | 46 | < 5 | | | |
| KV-4 | NII | 0.75 | > 1000 | > 1000 | 190 | < 5 | | | |
| KV-5 | NII | 0.06 | 20 | 58 | 108 | < 5 | | | |
| | | | | | | | 5 Au & Ag by A.A. @ \$2.50 | | \$ 12.50 |
| | | | | | | | 5 Pb, Cu, Zn geochem @ \$2.50 | | 12.50 |
| | | | | | | | 5 Mo, geochem @ \$1.50 | | 7.50 |
| | | | | | | | 5 samples prepared @ \$.85 | | 4.25 |

Mr. R. C. Edmiston
 CC: American Smelting & Refining Co.
 ADD: P. O. Box 5795
 CITY: Tucson, Arizona 85703
 ADD:
 CITY:

REMARKS:

Analysis Cert. By

Preparation \$ 4.25
 Analysis \$ 2.50

ACC: AMERICAN SMELTING & REFINING CO.

Date Spl. 8/19/69
 Received

Date 8/30/69
 Compl.

TUC 3-3351

\$ 6.75