



CONTACT INFORMATION

Mining Records Curator
Arizona Geological Survey
1520 West Adams St.
Phoenix, AZ 85007
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

The following file is part of the

Arizona Department of Mines and Mineral Resources Mining Collection

ACCESS STATEMENT

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

QUALITY STATEMENT

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

PRINTED: 06-21-2012

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: KID SAMPLE

ALTERNATE NAMES:

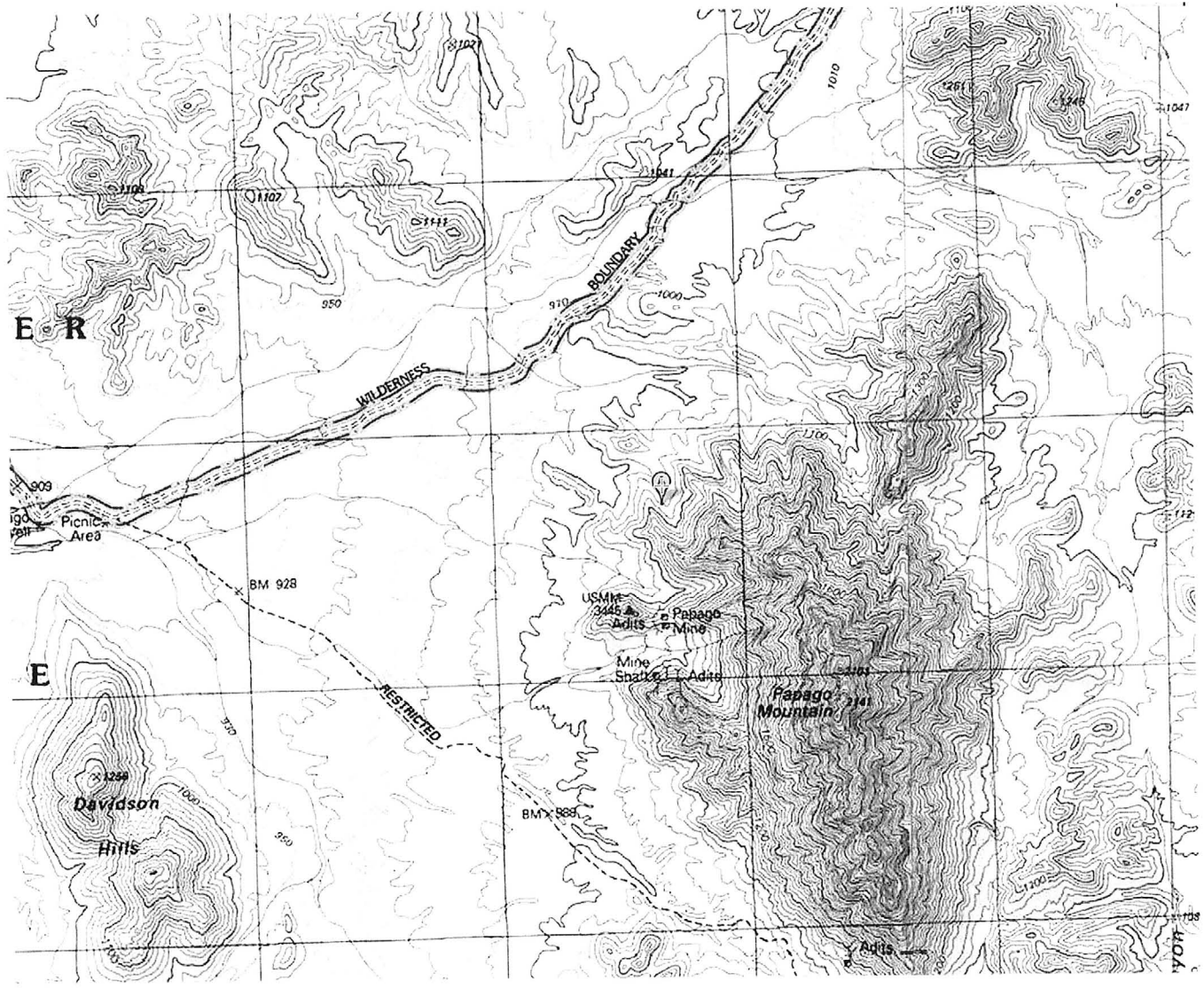
PIMA COUNTY MILS NUMBER: 282

LOCATION: TOWNSHIP 15 S RANGE 10 W SECTION 23 QUARTER E2
LATITUDE: N 32DEG 05MIN 58SEC LONGITUDE: W 113DEG 15MIN 38SEC
TOPO MAP NAME: O'NEILL HILLS - 15 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
URANIUM

BIBLIOGRAPHY:
US AEC PRR PIMA COUNTY ARIZ, 1951, P. 625
ADMMR KID SAMPLE FILE





STATE OF ARIZONA
DEPARTMENT OF MINES AND MINERAL RESOURCES

Mineral Building, Fairgrounds, Phoenix, Arizona 85007 • (602) 255-3791

KID SAMPLE

PIMA COUNTY
AGUA DULCE DIST.
T15S, R10W,

MILS KID'S SAMPLE NO 1-17

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Frank Ray Rare-earth^h Prospect
(Kid Sample)

Date January 7th, 1953.

District Agua Dulce

Engineer A.L. Flagg

Subject: A prospect containing rare-earth minerals, monazite, thorium etc.

The property is located in the southern part of Pima county, about 2½ miles SE of Papago Wells, some 40 miles south of Ajo. It is reached over the Papago Wells road through Growler Pass, turning easterly about ¼ mile east of Papago Wells. As of this date the roads were in good condition.

The claims (unpatented) are laid out in a general north-south direction along the southwest facing slope of a rugged short range, north of the Agua Dulce Mountains.

The range is composed of a coarse grained granite through which many narrow pegmatite dikes course parallel to the axis of the range. The dikes have discontinuous outcrops. At widely separated spots along the strike there are local swellings in the dikes where white quartz predominates. It is in these areas that the rare-earth minerals occur. Relatively large books of biotite are also found in these quartz segregations. Some garnet is visible.

The rare-earth minerals are in bunches from the size of a pea up to several inches in diameter. They are black, sometimes glassy and hard. The individual minerals have not been identified.

A very limited amount of prospecting work has been done in two places. One is right beside the road at the base of the range. The other is at a higher point perhaps 150 feet above the lower one. In each of these there are scattered occurrences of the rare-earth minerals. The higher one covers an area not over 50 by 125 feet.

Until a considerable amount of work has been done it will be impossible to form any conclusions as to the importance of the occurrence. Because of the limited quantity of rare-earth minerals in these localizations it does not seem likely that the deposit will prove to be of economic importance. However, further work might be done profitably on the two mentioned outcrops with some additional prospecting along the strikes of pegmatite dikes.

Scheelite is reported from a bold white cliff near the top of the range but this was not explored.

Frank Ray's address is: 3337 E. Washington, Phoenix, Arizona

DEPARTMENT OF MINERAL RESOURCES

Service Report

Date 1-7-53

Nature of Call _____

Place Frank Ray Rare-earth Prospect

Name Frank Ray,

Address 3337 E. Washington, Okla.

Property ± 2½ mi SE Sapago Wells
in Pima County.

Subject Examination of limited
exploration in pegmatites for
samaraskite, monazite and other
rare-earth minerals.

Action Recommended exploration of
dikes along strike for further
indications of mineralization.
Report in file.

Signed

W. L. Flagg,

Use other side if necessary

ALFRED D. BROWN ASSOCIATES, INC.

59 PEARL STREET

NEW YORK 4, N. Y.

U. S. A.

April 2, 1952

Mr. Frank Ray
The Quartzcote Co., Inc.
3337 East Washington
Phoenix, Arizona

Dear Mr. Ray:

The investigations of Dr. Gene Tom have not been of the most promising sort. The samples gathered by Dr. Tom are reported as being very disappointing and did not show any appreciable quantities of rare earths.

Based upon discussions between Gene Tom and Dr. Harold Kremers, Director of Research of Lindsay Light & Chemical Company, the deposit has been judged to have insufficient material in sight to warrant immediate interest. Further, the remoteness of the deposit from proper water supplies and transportation, coupled with the very low percentage of indicated rare-earth content, has caused a decision on their part to judge the deposit to be uneconomic.

This information, of course, has been a serious set-back in our plans and calls for reappraisal of the whole picture.

We, of this office, have been working exclusively with Lindsay on both the domestic and foreign ores of rare earths. This action has been taken in view of the fact that Lindsay is the largest user of this ore in the world and have jointly explored all our potentials.

Now, with Lindsay pulling out of this picture, our position is extremely weakened. But, in view of your statements and also in view of the reports from Mr. Flagg, we feel that some further work should be expended in the matter. Thus, we of this office, as well as your partner and yourself, will have the benefit of as thorough a study as possible.

The main ray of hope that presently seems open is that two points are open to consider. Firstly, the point that has caused most of the decision to discontinue is that water is not available at or near the sight. As such, wet operation is the only preliminary operation that has been given consideration. Secondly, the study has been made purely on the basis of actual rare earth contained and value of deposit has been judged on this point alone.

Taking the first point, we feel that water is not a prime obstacle in the whole picture, since air separational work has been of increasing importance in areas such as yours. The operation is of higher cost than is the case with either Wilfley's or Humphrey's. But, when transport is added to considerations of water-separation, the overall cost ratios point to potentials of air being proper at this location.

Relative to the second point, it is clear that all the mineral elements must be considered. Your area, being coarsely pegmatized, points to the fact that many other minerals might be present. And, since a pegmatite must be worked in toto for proper

success, the exact nature of the other constituent minerals must be determined.

In the report of Gene Tom, there was indication that the deposit contained some of the Niobata-Tantalite series. If this proves correct, the deposit should also contain tin, etc.; thus proving up a deposit of even greater value than you had anticipated. But, by the same token, you must realize that these points still are more or less assumed conditions, and not assured facts.

In view of the turn of events, we must ask for some more cooperation from you towards proving up this deposit; namely, the procurement of adequate bulk samples from a number of locations. These samples are not to be made selectively, but rather should include all materials available, whether quartz, feldspar, or what-have-you. These bulk samples will then be shipped to a location we will designate. There, a complete separation on air-tables will be performed, giving indication of the elements and percentages which can be gained from each sector involved. Each sector should be sampled to the extent of 500 lbs or more, in order to get a proper picture. This material should be bagged in 100 lb units, or thereabout, numbering each bag for reference, with record as to points these were drawn from.

In drawing samples, I would suggest that you consult with Mr. Flagg who could indicate the best method of procedure. Further, Mr. Flagg has indicated that he would be interested in visiting the deposit. As such, specific procedure can be established. In drawing the samples, it would be best to maintain a sketch which would identify the specific locations, indicating the bag numbers containing the material from each location.

Further, as a suggestion for simplification, it might be well to sample the areas selected by Dr. Gene Tom. These, I understand, are from three locations.

I indeed regret that we have found such poor results and I can imagine your own reactions. However, I know that you would not want a single stone unturned until you have a complete and accurate picture. As such, I look to you for this additional work, and on the basis of the findings, we can both understand the true picture.

Sincerely yours,

ALFRED D. BROWN ASSOCIATES, INC.

Alfred D. Brown
President

ADB:fc

REPORT OF FIELD TRIP TO PROPERTY OF F. S. RAY NEAR AJO, ARIZONA, MADE BY LINDSAY LIGHT & CHEMICAL COMPANY:

"Frank Ray, a man of about forty, says that he owns this business. It is a small outfit specializing in paints, decorating, and swimming-pool design and construction. He says that he has a comfortable income and that prospecting is merely a hobby with him. He has some copper-lead claims in the western part of Arizona near quartzite. A brother-in-law who lives in Chicago has spent some time prospecting with him and they own these claims jointly.

Ajo, Arizona, the nearest town, is the site of a large Phelps-Dodge mine and smelter and a branch of the Santa Fe Railroad serves it. The claims are reached by a desert road which leaves the Arizona Highway #86 a mile east of the smelter. They are located forty miles SW by way of this road running through Organ Pipe Cactus Monument to within two miles of the Mexican border. This road is called the Papago Well Road. It is really rugged, traversing several desert dry washes and numerous ditches up to four feet deep. A four-wheel drive rig is almost necessary, although it might be made in a pick-up truck.

This group of six claims, located in Pima County, were originally located for copper-lead and the RE-Th minerals discovered later. Most of the predominate rock is a very sparse pegmatitic granite. The black minerals are found in pegmatites, closely associated with large quartz dikes, the quartz being very dense. The pegmatite rock adjacent to the quartz dikes appears to be a graphic granite, grading into a coarser texture toward the country rock. The occurrence of the black minerals is very sporadic at some places appearing to be in pods and veins, widely scattered, and in others appearing in very small crystals at two to three inch intervals within the

ALFRED D. BROWN ASSOCIATES, INC.

59 PEARL STREET

NEW YORK 4, N. Y.

U. S. A.

pegmatite, this consisting of both plagioclase and orthoclase, quartz, and rather large books of biotite, especially along the contacts.

Most of the black minerals noted appear to be attracted by an ordinary bar magnet.

One has a velvet-black luster, appears to be orthorhombic, is magnetic and may belong to the Niobate-Tantalate group. The other common one noted is of a more granular texture, rarely crystallized, black, and does not seem to be nearly as magnetic as the former. Also, a glassy brown mineral is seen along the contact which resembles garnet, closely, but due to alterations no definite crystal structure can be seen.

A couple of small pieces of this latter mineral are included for a check with the Petrographic Microscope to determine if it is isotropic.

All the work done on the property has been in connection with the copper-lead except at three places on the lower vein which have been slightly opened exposing some of the black mineral in the pegmatite. There are three of these pegmatities showing on the property, striking in a southeasterly direction, with dip from about 45° on one to nearly vertical on another. The best exposure is on the upper one which is about 1200 feet NW of the road into the property, about 600 feet up a vertical cliff. The sample was cut across the face of the pegmatite which is cut by the quartz, 2½ feet of pegmatite showing on each side of the quartz vein (Sample #1 - 528071). The second was taken from the only small pod of black material seen in the outcrop at the pinnacle of the pegmatite, about 35 feet above #1. Sample #3 was taken at the outcropping below where the only digging on the vein has been done. This is the spot from which all the samples submitted to Alfred D. Brown have come. Ray says the Monazite and Allanite-Euxenite appear together in these infrequent pods, which weigh up to forty pounds. None were in sight anywhere along the opening in the quartz-feldspar pegmatite. Some small black minerals are evident along the face

ALFRED D. BROWN ASSOCIATES, INC.

59 PEARL STREET

NEW YORK 4, N. Y.

U. S. A.

from which the sample was taken.

There are other quartz veins, probably extensions of the ones examined, appearing on the mountain-side to the north. Ray says these do not contain much of the RE minerals.

Figuring with an S.G. of 2.75, there is possibly a little more than 1000 tons of the pegmatite exposed at the upper outcrop. However, it is a certainty that there is more below this covered by overburden, the width of which is unknown. At the lower vein, site of Sample #3, no estimate is possible, as not enough of the vein is uncovered to permit a study of the size of the vein or of the prevalence of the RE minerals contained.

From the nature of the rock, it would seem that a concentration of the heavy minerals could be easily accomplished by a tabling or jigging operation, simply removing the quartz and feldspar. However, as far as could be learned, there are no water wells of any size SW of Ajo from which water could be obtained for such an operation. This would entail hauling the rock some forty miles for concentration, the road having to be built, graded, and maintained.

These things, combined with the fact that the upper and seemingly best body of rock is 600 feet vertically above the road, would mean that the percentage of RE minerals and its per-ton value must be extraordinarily high in order to develop a mine at this location.

The extent of the RE-bearing pegmatite should be explored, either by drilling or drifting from below, providing chemical analyses warrant.

/s/ Gene Tom"

ALFRED D. BROWN ASSOCIATES, INC.
59 PEARL STREET
NEW YORK 4, N. Y.
U. S. A.