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May 9, 1972

Mr. John N. Faick
2238 East Grant Rd.
Tucson, Arizona 85719

Dear John:

Enclosed is your report on the Elsworth property.

Thank you for presenting the property for our consideration. We are not in a position to move on it at this time. However, having a copy of the report will be useful in order to schedule a possible visit in the future by other members of our staff, when in the vicinity of the property.

Very truly yours,

E. Grover Heinrichs
Assistant Manager Exploration

EGH:td
enclosure

May 9, 1972

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Very truly yours,

E. Grover Heinrichs
Assistant Manager Exploration

EGH:td
enclosure

Ken Jones
Read & Return

EGH

2238 East Grant Rd.
Tucson, Az. 85719
May 6, 1972

Mr. Grover Heinrichs
Administrative Geologist
Essex International, Inc.
1704 W. Grant Rd.
Tucson, Az. 85705

SXM

MAY 9 1972

RECEIVED

Dear Grover:

Enclosed herewith is a brief report on a lead-silver property which you visited briefly with me in March 1969 and which I mentioned to you again by telephone a few days ago. I would appreciate it if you would review this report and discuss it with Mr. Paul Eimon to determine if the property might be of interest to your company. Additional information is available if you wish to make a thorough investigation of the property.

You may keep the report as long as you need it but I would appreciate having it returned when you are finished with it.

Sincerely,

John N. Faick

John N. Faick

LEAD-SILVER DEPOSITS OF THE ELLSWORTH PROPERTY

ASH SPRING DISTRICT, COCHISE COUNTY, ARIZONA

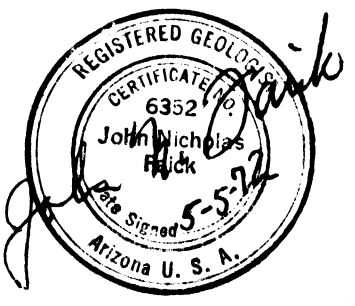
A Geological Report

by

John N. Faick, Ph.D.
Registered Geologist

2238 East Grant Road
Tucson, Arizona 85719

May 28, 1971



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SILVER-LEAD DEPOSITS ON THE ELLSWORTH PROPERTY ASH SPRING DISTRICT, COCHISE COUNTY, ARIZONA

A Geological Report
by
John N. Faick, Ph.D.
Registered Geologist

INTRODUCTION

Located about 8 miles east of Douglas, Cochise County, Arizona is a three-square-mile area in which very small, rich, lead-silver deposits (some of which contain copper) have been prospected from time to time over a period of many years. In several places the deposits are closely spaced and the intervening zones contain disseminated minerals in such quantities that a few zones of moderate size should be considered as low-grade, disseminated lead-silver deposits suitable for open pit mining on a moderate scale. At least five of the zones containing the lead-silver deposits are attractive exploration targets which should be explored and evaluated to determine if it is economically feasible to mine the deposits.

LOCATION, ACCESSIBILITY, TOPOGRAPHY, POWER AND WATER

The area where the lead-silver deposits have been found lies in the Ash Spring district, in sections 15, 16, and 17 in T. 24 S., R. 29 E. (see figure 1). The south side of these three sections adjoins the Mexican border and a Cochise County road passes near the north side of the mineralized area. This road, which is an extension of East 15th Street in Douglas, provides easy access to the property. Most of the property is readily accessible over several jeep trails.

Douglas, with a population of about 12,000, is the site of Phelps Dodge copper smelter, and is an important railroad shipping point. Douglas would be the source of labor and supplies for any work done on the Ellsworth property, and would also be the source of electric power. Water for a mine and mill would be obtained from wells in a valley 3 or 4 miles east of the property.

OWNERSHIP AND HISTORY

The lead-silver deposits occur on both Federal and State land and the mineral rights are controlled by Earle and Leona Ellsworth who have approximately 67 unpatented claims (see figure 2). These consist of lode claims on Federal land and Type-A lode claims and mineral leases on the State land.

According to the Copper Handbook for the years 1909, 1910-1911, and 1918 the area was intensively explored during the early 1900's. By 1908 the Grand Arizona Copper Company had explored about 700 acres of land with about 1,000 feet of workings including 3 shafts respectively 40, 70 and 325 feet deep, and a 42-foot and 65-foot long crosscut tunnel and a 115-foot drift tunnel. Some of the workings had explored a

contact deposit (Copper Handbook, Vol. X, p. 873) averaging about 8 feet wide between limestone and porphyry. This was a sulfide deposit containing a small percentage of copper and zinc and as much as 45 percent lead and 28 ounces of silver per ton with small values in gold. People familiar with the history of the Arizona mine say it yielded about $75,000 in silver just before operations ceased about 1910.

GENERAL GEOLOGY

The Ash Spring district, as shown by a reconnaissance geological map by Cooper (1960), is underlain by stratified rocks of the Bisbee group of Cretaceous age and by intrusive igneous rocks of probable Tertiary age. The stratified rocks in the area are dominantly thin bedded limestone with which are associated some shale and relatively thin discontinuous beds of sandstone. The thickness of these strata in the Ash Spring district is not known but elsewhere in southeastern Arizona the formation attains a thickness of at least 4,000 feet. It is possible that further study will show that some of the mineralized limestone belongs to the Naco group of Upper Paleozoic rather than the Cretaceous. On the Ellsworth property the strata were considerably deformed by faults and folds but generally have a north-northwesterly strike and a southwesterly dip. The igneous intrusive rocks are relatively fine-grained porphyritic sills, dikes and small stock-like masses of andesite and monzonite. These small intrusives are widely scattered throughout the Ellsworth property.

ALTERATION AND MINERALIZATION

Alteration of both the igneous and sedimentary rock was relatively mild. Some of the igneous rocks are essentially unaltered but some zones show the effects of hydrothermal alteration to clay and locally to sericite, and in some places the rocks have been silicified. Some of the igneous intrusions contain considerable pyrite but we do not know if it is in any way related to the lead-silver mineralization. The limestone in some places has been bleached and recrystallized but for the most part it remains relatively unaltered.

The principal ore mineral is galena (lead sulfide), some of which has been partly oxidized to cerrusite and anglesite. Here and there are small, spectacular occurrences of copper sulfides and carbonates but the only metals sufficiently abundant to be valuable are lead and silver. These always occur together, thus suggesting that the principal ore mineral is argentiferous galena. The galena is closely associated with relatively abundant barite, some quartz and minor amounts of calcite. Limonite associated with some of the ore suggests the presence of siderite or ankerite, an iron carbonate. Abundant galena nuggets, some as much as 3 inches in maximum dimension, have been found near the head of the main gulch crossing the claims.

The ore minerals occur most abundantly in the limestone but also occur in the igneous intrusions. Most of the ore occurs in small, rich, elongate lenses and pods in the folded and fractured limestone and in fractured porphyry. Some of the small deposits are vein-like and appear to be concentrated along minor fractures and faults and some deposits

are localized on bedding planes in the limestone strata. In a few places the galena is disseminated in both limestone and porphyry. Also, in Johnson Ridge the lead-silver ore minerals seem to be disseminated in silicified porphyry, and south of Cindy Hill the lead ore seems to be disseminated in silicified limestone.

The individual lenses, pods and disseminations of ore minerals, although locally abundant, constitute only a small proportion of the total volume of mineralized material. To recover the ore minerals both the ore and host rock must be mined and processed on a relatively large scale, thus, in the commercial sense it is appropriate to refer to the mineralized zones as disseminated lead-silver deposits.

SAMPLES AND GRADE OF ORE

Many assays of samples of the ore have been made, of which assays of 47 samples are shown on Table 1. Obviously these samples represent choice, select ore material found during prospecting activities and do not represent the grade of ore that might be mined from the deposit.

The arithmetic average of 42 silver assays and 38 lead assays shown on Table 1 is 5.30 ounces of silver per ton of ore and 15.0 percent lead. The indicated average metal ratio is one ounce of silver for each 2.83 percent of lead but the range is from 1.8 to 9.0 percent lead for each ounce of silver. The wide range of these metal ratios suggest a zonal relationship of lead and silver of which the full significance is as yet unknown.

A mineralized zone located in the southeast corner of section 16 has been explored by shallow pits and trenches and several samples were cut from the ore. The ore occurs in limestone and appears to be related to a northeast trending shear or fault zone that dips southeasterly. This ore contains a higher proportion of silver than any of the other zones, hence it is referred to as the Silver Zone or sometimes as Rufio Silver prospect. Assays of samples are given in Table 2.

TABLE I - Assays of Samples from Ellsworth Property, Ash Spring District, Arizona

Assay date	Assay Office	Collected by	Silver Oz./T	Copper Percent	Lead Percent	Description and Location
8/24/55	Phelps-Dodge	Collett	0.10			Hand Sample, Red Rock 3.
12/30/55	Hawley	Ellsworth	0.30	2.07		Near monument, on Saddle, Panther 8
11/ 2/56	Hawley	"	9.40	0.44	26.3	Panther 9; near Jeep park.
"	Hawley	"	2.50	0.26	9.7	Border King 5; on hill above prospect.
"	"	"		3.4		Border King 6; near old silver mine.
1/17/57	"	"	6.70		23.9	Panther 9.
2/15/57	"	"	Tr.		0.4	Unidentified.
2/21/57	"		9.10			Border Queen 2; in arroyo.
6/24/57	"	"	1.50		20.9	Border King 5.
6/24/57	"	"	1.40		9.4	Panther 4.
6/26/57	"	Minerals Reserve	3.70		10.7	Panther 1.
"	"	" "	0.90	0.28	7.3	Panther 7.
7/ 3/57	"	" "	3.20		10.9	Panther 7. Float sample collected over large area by McFaren.
9/20/57	Nevada Mineral Lab.	Ellsworth	1.00		12.3	Panther 4.
10/10/57	Hawley	"	4.60		21.1	Border Queen 1.
11/ 5/57	"	"	1.60		7.0	Border King 5.
11/15/57	"	"	11.00		39.9	Border Queen 2.
1/10/58	"	"	4.90		27.3	Panther 8.
3/ 5/58	"	"	9.00		31.9	Panther 9.
3/24/58	"	"	5.50		29.8	Panther 8. Small old prospect below big cut. In "blue vein."
8/19/58	"	"	2.70		26.3	Panther 1. In barite. E. side Terri Kat hill, halfway down slope.
11/26/58	"	"	39.60		55.6	Panther 8. On NW side of hill.
11/12/59	"	"	31.80 Silver			Panther 8.

Assay date	Assay Office	Collected by	Silver Oz./T	Copper Percent	Lead Percent	Description and Location
1/ 5/61	Hawley	Ellsworth	6.16		12.5	Border Queen 1. Out of arroyo.
7/ 4/61	Rochin	Ellsworth	8.40		17.5	Border King 1-3. On saddle.
8/19/61	"	"	10.30		26.9	Border Queen 1.
8/ 3/62	"	"	2.90			Panther 1.
6/11/64	"	"	0.60		1.5	Red Rock 4A.
6/11/64	"	"	3.00		3.8	Border Queen 2.
"	"	"	3.20		7.6	Red Rock 5.
"	"	"	12.80		3.0	Panther 31.
"	"	"	2.20		12.3	Border King 21.
"	"	"	5.30		5.6	Border King 23.
"	"	"	4.00		6.9	Border Queen 3.
"	"	"	12.20		18.6	Panther 8.
"	"	"	0.40		3.0	Border Queen 5.
"	"	"	1.00		6.3	Panther 40.
2/ 9/65	"	"	0.80	0.08	5.6	Border King 6.
"	"	"	9.80	0.71	7.5	Red Fox 1.
7/28/65	"	"	1.60		17.7	Border King 21.
5/17/65	"	"	3.60		9.1	Border Queen 3.
8/12/66	"	"	1.04			Border Queen 3.
"	"	"	4.12		23.5	Border King 5.
"	"	"	0.52		6.3	Border Queen 2.
9/26/68	"	"	9.76		6.2	Panther 7.

Average of 42 assays 5.30 oz.Ag.

Average of 38 assays 15.0% Pb.

TABLE 2. Assays of Samples from Rufio Silver Zone

Assay Date	Assay Office	Sampled By	Silver Oz/Ton	Lead Percent	Description
2/17/71	Rochin	Torkelson	3.78	5.34	A 20 lb. chip sample from vertical cuts in walls of pit.
2/17/71	Rochin	Torkelson	4.94	8.98	Hand sorted stockpile.
2/17/71	Rochin	Torkelson	13.98	20.13	Hand sorted stockpile.
10/27/70	Jacobs	Faick	18.0	38.5	Hand sorted stockpile.
10/27/70	Jacobs	Faick	2.5	2.4	5-ft. vertical cut east wall of pit.
1/21/69	Rochin	Ellsworth	12.4	61.10	Specimen from original disc.
1/31/69	Rochin	Ellsworth	23.8	18.10	Sorted ore from original disc.

ORE RESERVES AND FUTURE DISCOVERIES

In several zones on the Ellsworth property small lenses, pods and disseminations of lead-silver ore are sufficiently abundant so that entire zones may be considered as possible ore suitable for open pit mining by small to medium scale operations. There are at least 5 zones that appear to be especially favorable and warrant further exploration to determine if the size and metal content of the deposits would permit profitable open pit mining. These zones are on or near the following claims: Border King 7, 8 and 10; Border Queen 2; Panther 7, 8 and 9; and Panther 1, 2, and 4. There is also a good possibility that concealed replacement ore bodies will be found in the limestone or along contacts between the sedimentary and intrusive rocks. At this time it is not practical to assign ore reserve or grade estimates to any of these mineralized zones because they have never been systematically explored or sampled. These mineralized zones must be considered only as possible or geologically inferred ore until further proven.

EXPLORATION

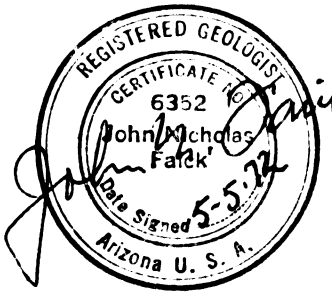
The Ellsworth property has been thoroughly prospected by hundreds of small pits and cuts which have proved that it is strongly mineralized. This prospect work tested the outcrops and in some cases tested the ore to depths of several feet. A few shallow shafts were put down in the early 1900's but the results of this work are largely unknown to us. McIntyre Mines held a one-year lease and option on the property beginning in May 1969. During this one-year period several Induced Potential geophysical lines were run and some weakly anomalous zones were recommended

for diamond drilling. The work was done by McFarr Geophysics, Inc., and we have copies of the reports. After McIntyre completed its work the Phelps Dodge Exploration Company made extensive geophysical surveys over the Ellsworth tract, the results of which have been promised to us and should now be available. Phelps Dodge geologists also cut and assayed a few samples, studied rock specimens for alteration, and did some geochemical testing. A short report on this work is available and it will be used along with the geophysical surveys to guide future exploration.

The geophysical work done by McIntyre and Phelps Dodge, our own knowledge of the geology, and the old prospect work provide an excellent foundation for future exploration. The next step in exploration should be building suitable access roads into the mineralized zones to be explored, bulldozing prospect trenches across the mineralized zones where necessary for inspection and sampling, and starting a diamond drilling program to test the ore zones from shallow to moderate depths. The first drill holes need not be very deep as our first objective should be to determine whether or not the mineralized zones cropping at the surface are sufficiently large and rich to be mined by open pit methods.

RECOMMENDATION

Because of the widespread occurrence of good quality lead-silver ore on the Ellsworth property it is highly recommended that this property be thoroughly investigated in an effort to find medium to large ore bodies suitable for open pit mining.



Respectfully submitted,

John N. Faick, Ph.D.
Mining Geologist

Tucson, Arizona
May 28, 1971

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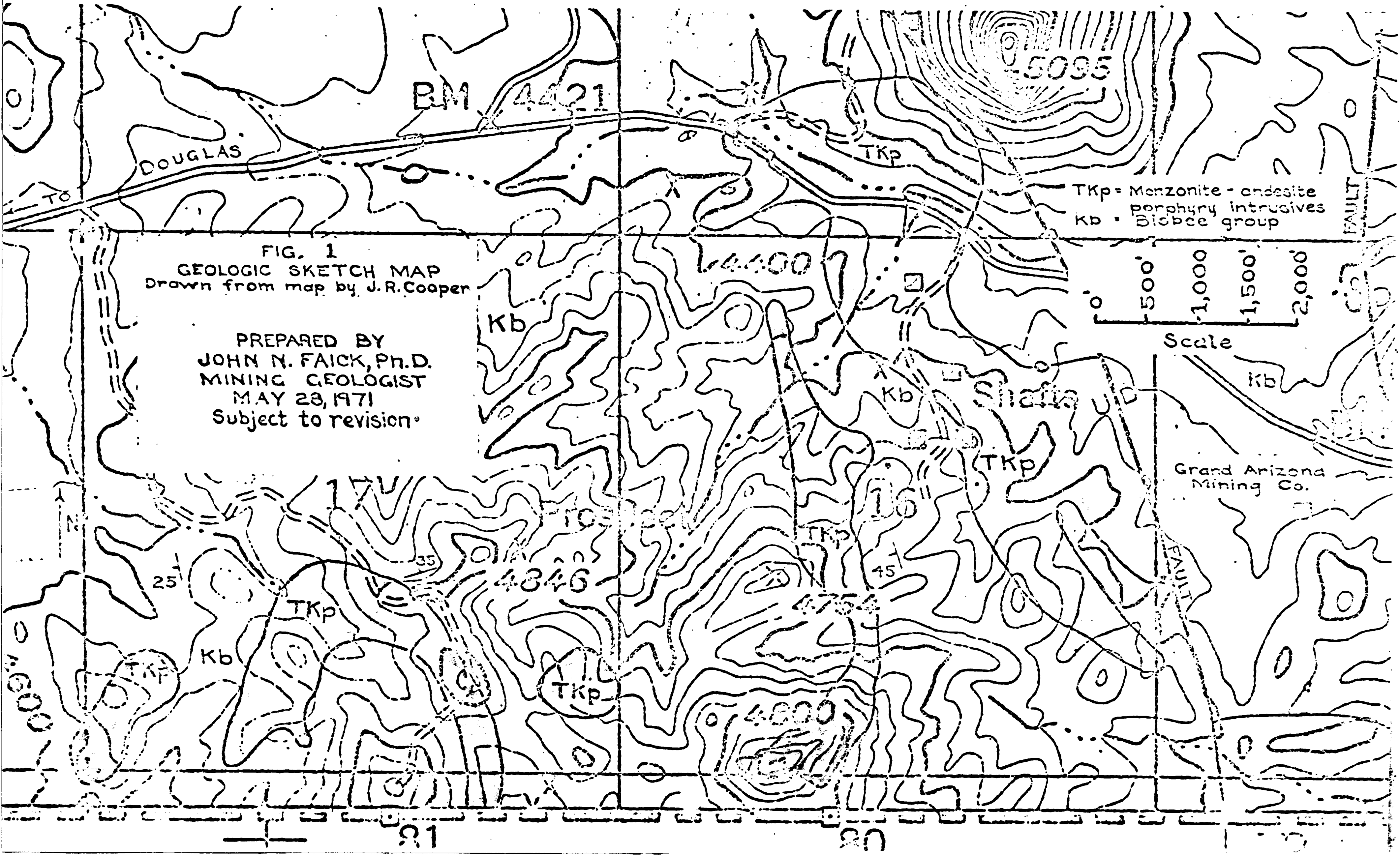
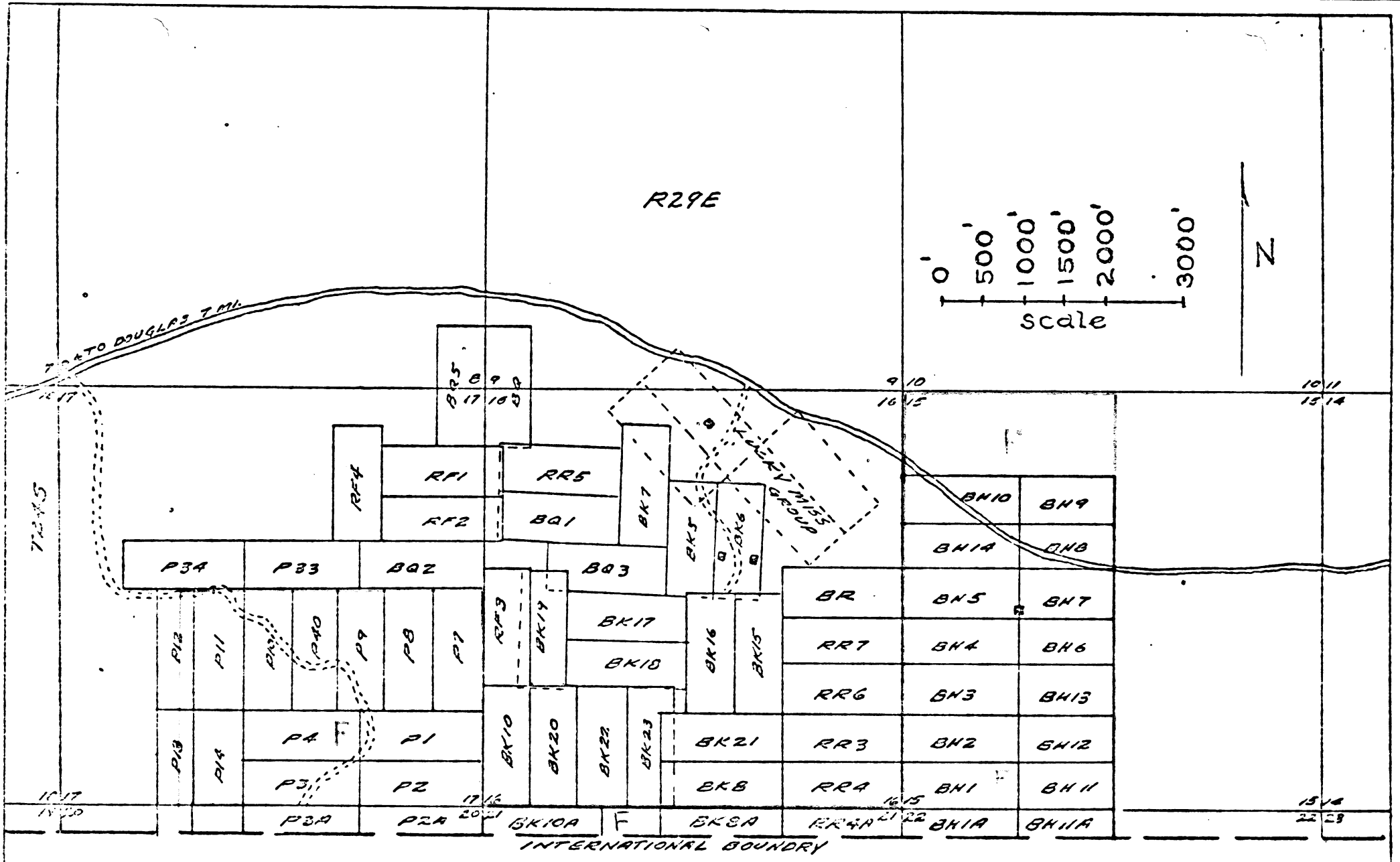


FIG. 1
GEOLOGIC SKETCH MAP
Drawn from map by J.R.Cooper
PREPARED BY
JOHN N. FAICK, Ph.D.
MINING GEOLOGIST
MAY 28, 1971
Subject to revision.
TO DOUGLAS
BM 4421
5095
TKp = Monzonite - andesite porphyry intrusives
Kb = Bisbee group
0' 500' 1,000' 1,500' 2,000'
Scale
4400
Shafts
Grand Arizona Mining Co.
4346
4754
4800
TKp
Kb
FAULT
25
35
45
N
17
16
81
80



CLAIMS

BQ BORDER QUEEN
BK BORDER KING
RF RED FOX
BH BLACK HAWK
RR RED ROCK
P PANTHER
BR BLUEROCK

SCALE - 1" = 1700' APPROX.

MAY 17, 1971 RT

CLAIM MAP
ELLSWORTH PROPERTY
T24S R29E
COCHISE COUNTY, ARIZ.

DESIGNATES
FEDERAL LAND
ALL OTHER IS STATE

FIG. 2

TURNEY, IRVIN & ASSOCIATES
P. O. BOX 595
SAHUARITA, ARIZONA

July 28, 1960

Mr. L. E. Broadhurst
2037 E. Rancho Drive
Phoenix, Arizona

Appendix "A"

Re: Ellsworth Mining Property,
Cochise County, Arizona

Dear Mr. Broadhurst

At Mr. Earl Ellsworth's request of July 26 and your verification of this date, this letter will outline the results of and opinions gained during my visit to Mr. Ellsworth's Ash Creek property. This visit, made on June 25, 1960, was of one day's duration and was a reconnaissance of the ground. No samples for assay were taken nor was any verification of property status made.

Mr. Ellsworth's claims cover over two square miles of federal and state land adjoining the International Boundary in Cochise County, lying principally in but not restricted to, sections 16 and 17 of T.24S., R.29E. They are some 10 miles due east of Douglas. The topography is hilly with relief of around 500 feet. Climate and vegetation are typical of the Sonoran Desert. Jeep roads, in fair condition at the time of the examination, provide access to the claims. The road from Douglas is two lane and graded.

Two principal rock groups are present. Oldest of these are the limestones and clastic sediments of the Bisbee Group (Cretaceous). These older rocks have been intruded by fine-grained, thick porphyry dikes or sills ranging in composition from monzonite to andesite. Contacts between the two rock groups are sharp and stand out upon inspection by their color contrast. The exposures of these igneous rocks are irregular in plan and indicate highly variable strike. Megascopic alteration of the igneous rocks is not intense but one has weathered to a seal-brown color, suggestive of oxidized pyrite. No pyrite was observed. Only slight and localized alteration of the sediments at the igneous contact has taken place. This appears to be mostly baking with some sparse development of epidote.

Principal mineralization in the area is galena and its oxidized products and there are minor, although locally impressive, amounts of primary and secondary copper minerals. It is my understanding that some silver has been mined from the district, and if such is the case, there is the added possibility of presence of this metal in the Ellsworth claims.

It is difficult to assess the amount of lead mineralization present since the various lead minerals are widely spread in the area. There does not seem to be a single definitive mineralized zone but rather a mineralized area consisting of a number of prospected and developed shows. In general the lead mineralization occurs in faulted and fractured limestone and appears to increase in abundance in the rocks closer to igneous contacts. The small amount of copper mineralization is fracture associated and erratically distributed.

Most of the mineral shows have been developed by shallow cuts and pits and several by more extensive work such as deep cuts and a shaft. The one shaft seen at the time of examination was inaccessible. This shaft, near a contact between dike and limestone appeared to be about 100 feet deep and had a moderate sized dump. Material on the dump indicates that some lead and minor copper may have been present in the workings.

None of the work done so far on the claims has blocked out any positive tonnage of ore but, instead, has opened the many shows of mineralization. In its present state, the property is only a semi-developed prospect but in my opinion a very attractive prospect upon which further exploratory and development work is well justified. This opinion is based upon the following factors:

1. The almost ubiquitous presence of lead mineralization in sedimentary rocks of the area. There are, of course, unmineralized zones in the sediments but nevertheless the widespread distribution of even the small shows is encouraging. The large hill near the center of the area appears to be intensely mineralized although, at first glance, the mineralization (cerrusite and anglesite) is not apparent.

2. An attractive and encouraging relation of igneous rocks to mineralization. Whether or not this relation will be of importance in the subsurface is difficult to tell but the close relations at the surface between dike and mineralization indicate that a favorable outlook could be taken on testing this relationship at depth.

3. Strong similarity of surface indications (alteration and fracturing) of this property with similar producing lead properties in other parts of southern Arizona.

4. Amenability of the mineralization here to relatively inexpensive concentrating methods.

Presence of primary copper minerals is interesting and deserves further consideration and testing. It is not possible now to evaluate shows of this metal but further development and exploration should give some answer.

In closing, I would like to restate that I believe this property to be an extremely promising prospect for further exploratory and development work and has sufficient potential to make a modest amount of such work well justified.

Respectfully submitted

Spencer R. Titley

Spencer R. Titley

cc: Mr. Earl Ellsworth ✓
File

Registered Geologist
CERTIFICATE EXPIRES
Spencer R.
Titley
DEC. 31, 19 60
ARIZONA, U. S. A.