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A

GEOLOGIC EVALUATION

of the

GREEN LODE LIMESTONE

PROPERTY

Pinal County, Arizona

by

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Phoenix, Arizona

October 17, 1970

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Map No. 1, INDEX MAP
Map No. 2, PROPERTY and GEOLOGIC MAP

Rosedal - strongly Siliceous

INTRODUCTION:

At the request of and authorized by Mr. G. A. Freeman, Phoenix Office of Home Stake Production Co., the writer examined Mineral Resources Green Lode limestone property in the SW/4 of Section 14, T. 2 S., R. 12 E., Pinal County, 3½ road miles south of the town of Superior, Arizona. Mr. E. Dale Penrod accompanied the writer on October 10, 1970, the day of the field examination.

CONCLUSIONS:

On the basis of the field examination and the seven surface samples taken by the writer, the following conclusions are submitted for consideration:

(1) The Mescal limestone formation present within the area of concern, is, except for isolated small areas, strongly dolomitic in character as well as strongly siliceous visibly in the southern portion of the area and strongly siliceous by assay content in the northern half of the area,
(2) No major potential target exists which could feasibly exhibit a large, consistant volume on which to justify an exploration development program nor a raw material reserve on which to project a long life operation, and,
(3) The property shoul not be of any further interest to Home-Stake Production Co.

PROPERTY, LOCATION and ACCESSIBILITY:

Mr. Penrod indicated there were eight or more claims comprising the property covering the SW/4 of Section 14. Some of these claims are lode type and others are placer type. From the protection standpoint, it is thought that both lode and placer type claims, coincidential with each other would be located, viz., a lode claim located on top of a placer claim, thus, no foreign entry by others could be made.

The property, for the most part, covers the SW/4 of Section 14, T. 2 S., R. 12 E. of the G. & S. R. B. & M. in Pinal County, Arizona.

Access to the property is south on State Route 177 from its junction with U. S. Highway 60-70 at Superior, Arizona. Mile post 166 on State Route 177 is just 3 miles south of the aforementioned junction. At a point 0.45 miles south of mile post 166, a dirt road bears right, (westerly) into the SW/4 of Section 14 and on to an old mining camp. Travel on this road (washed by recent rains) by high center vehicle for approximately ½ to 3/4 mile positions the observer approximately in the geographical center of the limestone formation and in one of the drainage patterns of the area. Three hills rise approximately 200 feet in elevation to the southeast, southwest and northwest of this drainage (See Map No. 2).

Hill slopes contain little to no vegetation and that which is present is the usual scrub cactii. Soil cover is extremely thin except near

the base of the several little washes draining the area.

Open pit quarrying could be ideal if an operation is established.

No gas, electric or water facilities exist on the property.

GEOLOGY:

Most of the SW/4 of Section 14 hosts limestone beds which appear to be the Mescal Formation, normally quite siliceous and/or dolomitic, at least in the Globe-Miami area and to some extent in the Superior area north of town.

The Concentrator Fault limits the limestone formation on the west and diabase is the limiting rock to the east. A general trend of the Mescal Formation at the property is N-S to N. 30°W. with dips of 10 to 55° east. The local variations are perhaps due to the thinning or thickening of some beds within the formation. Some slight folding of the beds is probably also present. No major, obvious criteria were observed which would indicate faulting or strong folding, however, such structural features could exist in as much as the sedimentary formations north of Section 14 (Sec. 11 and 2) are extremely "cut up" by east-west cross faulting.

The formation forms three hills previously mentioned, viz., southeast, southwest and northwest. A general observation indicates that the beds of the formation are basically continuous between the northwest and southeast hills as well as in the drainage separating the two hills. (See Map No. 2). Detailed geologic mapping at some future date may alter the foregoing surmise.

Traversing the formation from north northeast to south southwest, good, fine grained, dense, hard and light to medium gray beds of limestone are observed. In general, these beds are 50 to 100 feet thick, as expressed on the surface. Thinner limestone beds, 6 to 15 feet thick, which weather light tan to brownish and usually slightly crystalline, are interspersed in the formation.

The northeastern half of the formation (upper part) physically appears to be somewhat free of silica with the lower portion (southwestern half) containing much silica as sporadic, lenticular chert nodules which weather a medium brown color. It is in this portion of the formation that manganese outcrops as large blobs and also as vein form. A deep shaft (SE/4 of the SW/4 of the section) was sunk on strong manganese mineralization with limestone as both the foot and hanging walls. There are also several other shallow shafts on the property.

SAMPLING:

Seven samples were taken on the property, six of which were chip samples of outcrops across and mostly normal to the bedding strike. One sample was taken from the pit just west of the access road near the geographic center of the deposit. With the former samples, the writer attempted to

cover the greatest stratigraphic width of the formation in order to differentiate the poor and good to excellent beds of limestone.

Because of the small scale of Map No. 2, these samples are designated by letter "A" through "G", but herein are correlated with the writers sample numbers. A.R.C. laboratory assayed the samples for calcium carbonate and silica; the results of which follow as well as a description of the sample taken:

Sample Number Map	Ticket	Description	% $CaCO_3$	% SiO_2
A	1096	60 foot chip, light gray, fine grained, includes 8 foot light tan bed. West slope of SE hill. N-S, 35° E.	89.48	2.86
B	1097	40 foot chip, light to dark gray, dense, fine grained but somewhat crystalline, includes 6 to 8 inch wide silica veinlet. West slope of SE hill. N.10°W., 40°E.	71.03	2.46
C	1098	50 foot chip, light gray bed, 8 to 10 foot wide light tan bed and dark gray bed. Some chert south end of bed. NE slope of SW hill, N.30°W., 40°NE.	80.91	7.21
D	1099	50 foot chip, gray bed near top of SE hill on SW slope north of shafts in saddle exposing manganese. N.20°W., 12°NE.	92.87	4.35
E	1100	70 foot chip across N.10°W., 20°E. bed which has white surface but light gray interior. Some chert nodules. SE slope of NW hill near top.	87.16	0.97
F	1101	70 foot chip across N.20°W., 40°NE. dark gray bed, also with whitish bed, both with moderate chert nodules. E. slope of NW hill.	84.56	3.61
G	1102	20 foot chip across Pit face and bed of N.30°W., 55°E., dark gray, fine grained dense, flinty, some crystalline, some secondary calcite. Bed perhaps 50 to 75 feet thick.	93.93	1.97

POTENTIAL TARGET and RESERVE:

Assay results of the samples taken indicate:

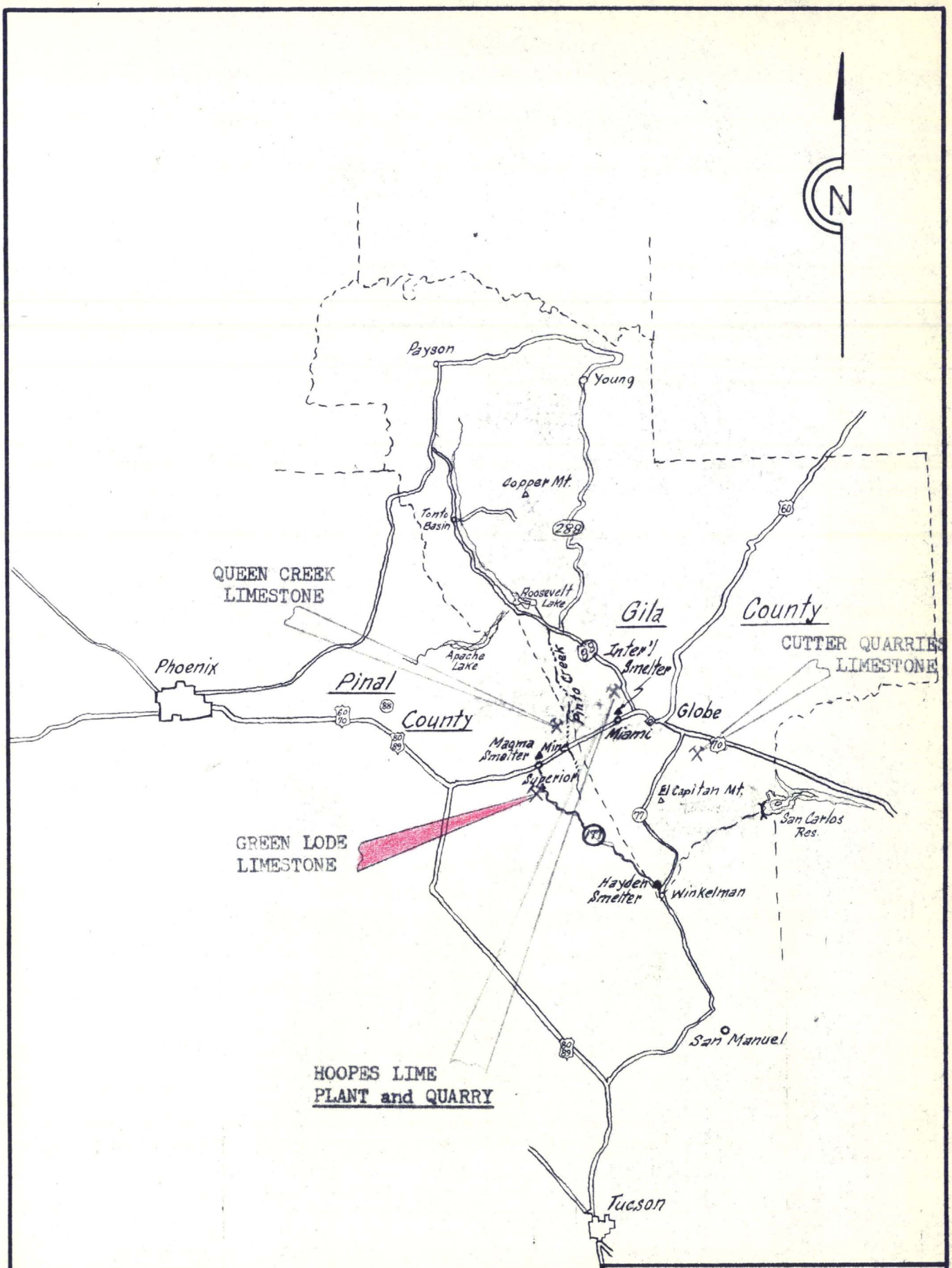
(1) Silica as visible chert nodules is present, but,
(2) Silica, not visible and discernable is quite prevalent in its distribution throughout the formation, and,
(3) The formation contains much magnesium carbonate, or R_2O_3, causing it to be a dolomitic or impure limestone.

Assay results of only one sample (#1102-from Pit) is acceptable from the standpoint of a possible raw material for lime plant operation, others being rejected mostly because of the low calcium carbonate content and much magnesium carbonate.

The poor results of the samples do not suggest that the property has any potential target nor reserve of any consequence to be of interest as a good limestone deposit.

Respectfully submitted,

R. E. Mieritz,
Mining Consultant
Phoenix, Arizona.



INDEX MAP

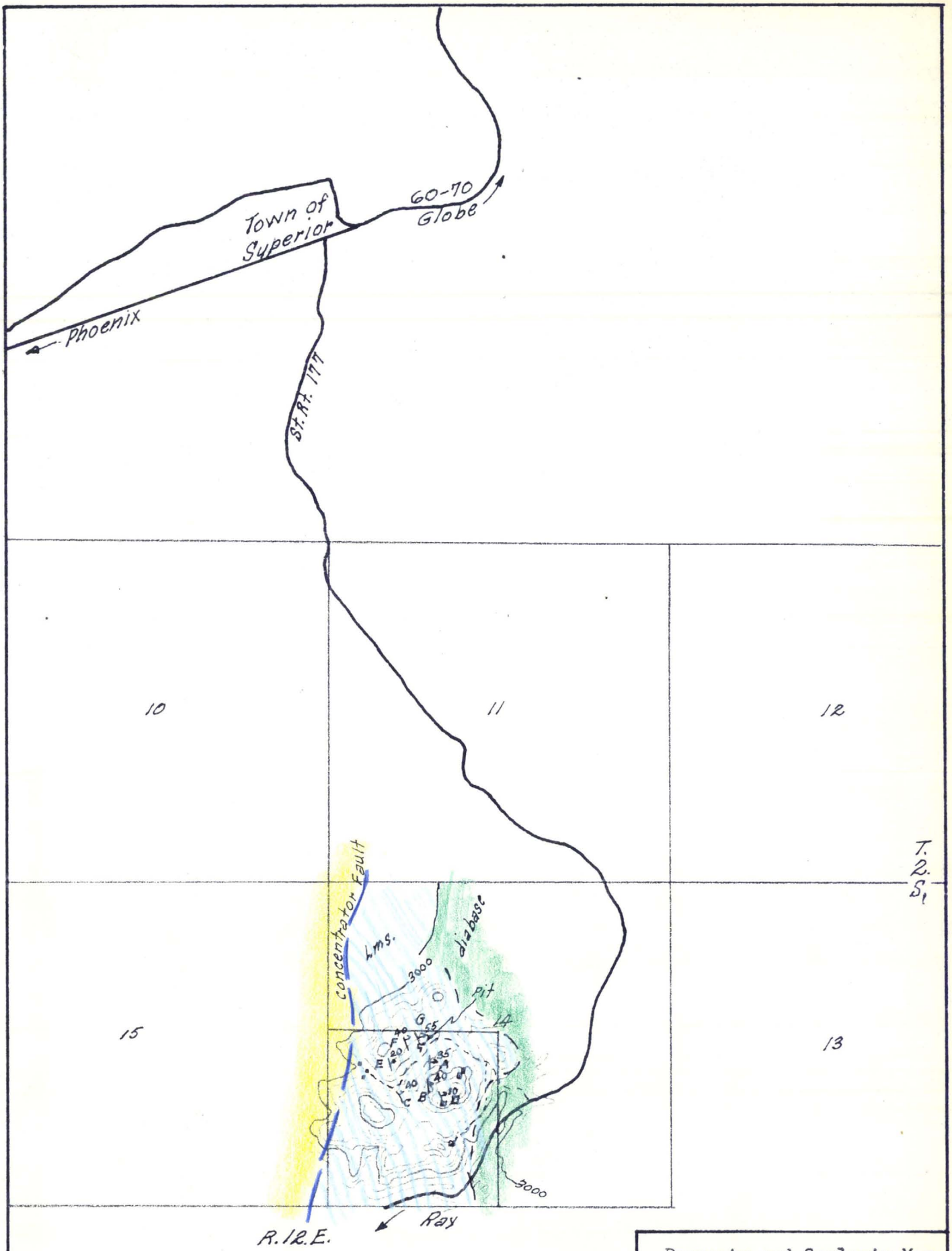
PORTION of ARIZONA

SCALE

1 INCH = ± 21 Mi.

MAY, 1970 R.E. MIERITZ

MAP № 1



Property and Geologic Map
GREEN LODE LIMESTONE
Pinal County, Arizona
Scale: 1"= 2000 Ft.

Oct. 1970 R. E. Mieritz

Map No. 2

3.5 mi to of Jct (Cuyler)
0.45 mi S. of Mile 166 - to Ray.
#177