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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: GLADYS MINING & SMELTING CLMS.

ALTERNATE NAMES:

GILA COUNTY MILS NUMBER: 130

LOCATION: TOWNSHIP 1 N RANGE 14 E SECTION 7 QUARTER C
LATITUDE: N 33DEG 26MIN 40SEC LONGITUDE: W 110DEG 58MIN 10SEC
TOPO MAP NAME: INSPIRATION - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
COPPER

BIBLIOGRAPHY:
ADMMR GLADYS MINING AND SMELTING CO FILE

12/12/86

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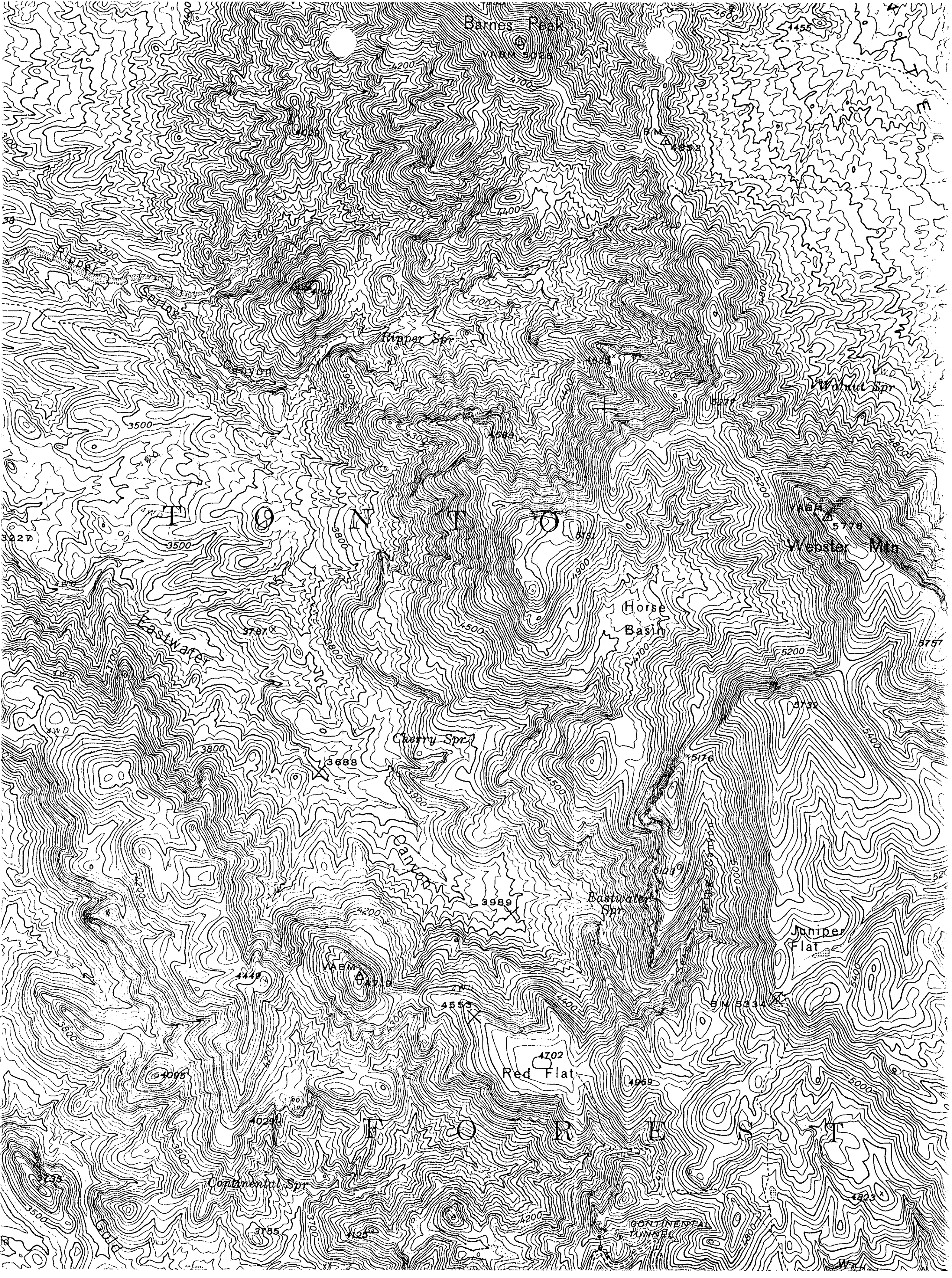
Barnes Peak
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Canyon
Walnut Spr
T O N T O
Webster Mtn
Horse Basin
Eastwater
Cherry Spr
Canyon
Eastwater Spr
Juniper Flat
Red Flat
F O R E S T
Continental Spr
CONTINENTAL TUNNEL

GLADYS MINING & SMELTING COMPANY.

IN, 152

The property of the Gladys Mining & Smelting Company is located in and bordering on Whitetail Gulch in the western portion of the Globe Quadrangle. The Continental Group (Old Dominion property) lies one and one-half miles to the southeast, while still farther to the southeast, at a distance of four and one-half miles, are located the large proven low-grade orebodies of the Miami Copper and Inspiration Consolidated Copper companies. A good wagon road, leading to Miami, the nearest railroad shipping point, passes within two miles of the property.

The group consists of eighteen claims, fully recorded and unencumbered in any way.

TOPOGRAPHY

The topography of this portion of the Globe Quadrangle taken as a whole is a very irregular crowded area of hills showing no apparent uniformity of size or arrangement, but nevertheless intimately related to the geological structure. Whitetail Gulch is a wide erosional valley furnishing the district drainage outlet to the northwest into Pinto Creek, a tributary of Salt River. The gulch, as it nears the Pinto, passes through a dacite flow and here the valley abruptly ceases and takes on gorgelike proportions. The valley and its bordering slopes lying at the head of this gorge have suffered severe faulting, and it is this faulted zone that the Gladys group covers. To the south the slope for a short distance rises gently, then is gradually succeeded by a steep, unbroken ascent reaching at its crest a height of one thousand feet above the floor of the gulch. To the north for a distance of one-third of a mile the valley rises with only a slight grade, then ends abruptly against a reef of quartzite which rises precipitously to a height of over 100 feet. This in turn at its crest is flanked by a large body of limestone which

rises sharply to the northeastward.

The property has a minimum elevation of 3,600 feet and a maximum elevation of 4,750 above sea leval. Vegetation consists chiefly of cottonwood and scrub oak trees, catsclaw, greasewood and manzanita shrubbery, which, while heavy on the lower elevations, becomes very scanty on the higher portions of the group. The floor of the valley is carpeted with buffalow grass, which affords excellent forage for stock. Water is furnished by two large springs, which supply a sufficient quantity for the immediate use of the Gladys company.

GEOLOGY

The country rocks are diabase, quartzites, limestones and dacite, with a small amount of conglomerates, which have been extensively faulted. The geological chronology may be summed up briefly as follows:

At the close of the pre-Cambrian era the district was essentially one of mountainous character. Ensuing centuries of erosion hewed this down to a comparatively level peneplain on which the next younger rocks, a series of shales, conglomerates and quartzites, termed the Apache Group, were deposited. Then followed another long erosion cycle, toward the latter end of which, probably the Devonian and Pennsylvanian, the Globe limestone was deposited. Succeeding this came another lengthy erosional era marked near its close by an extensive fault movement accompanied by a widespread diabasic intrusion, probably correlated with the Mesozoic period. Immediately following came another long erosional cycle which was attended by a second great fault movement during which the sulphide ores were introduced. Later followed a dacitic flow attended with considerable faulting.

IGNEOUS ROCKS

DIABASE.-The diabase, an alivine diabase, is a tough, heavy, dark gray, holocrystalline rock of a medium texture. Thin slides under the microscope show an ophitic aggregate of calcic labradorite, brownish augite, olivine, and some biotite, magnetite, and titanite. It is intruded as sills (intrusive sheets from a few feet to hundreds of feet in thickness) and dykes, and probably belongs to the Mesozoic period. As the mineralizing solutions are supposed to have derived their copper from the diabase it makes this rock an important factor in determining the mineralization of the district. Assays of fresh portions of diabase give a trace of copper.

DACITE.-The dacite is one of the youngest rocks to be found in the group, being probably of tertiary time. It is of a light pinkish gray color and is especially susceptible to weathering. Mineralogically it is of relative unimportance.

SEDIMENTARY ROCKS

QUARTZITE.-On account of extensive faulting, intrusive contacts and necessarily greatly accelerated succeeding erosion to which it has been subjected, the quartzite throughout the Globe Quadrangle occurs as isolated patches resting unconformably on the pre-Cambrian crystalline complex. On the group under examination it occurs as a high rugged reef cutting through the north end of the group in a northwest--southeast direction. A second portion occurs in the southern portion of the property, separated from the main reef by a large mass of diabase. As the Apache Group (under which it is classified) carries no fossils its age is highly problematical, possibly Cambrian or Algonkian. In appearance it is a dense, fine-grained rock, the weathered surface being of a marked red color. Fresh sections are of a light pinkish hue.

LIMESTONES.-A careful examination of the limestone found on this group discloses the fact that it is identical with the Globe limestone. It is highly fossiliferous and the fossils show that it ranges in respect to age from the Devonian to the Pennsylvanian period. It originally overlaid the Apache Group, which in its general distribution features it resembles, being possibly slightly more fragmentary. Throughout the Globe Quadrangle there are no noticeable unconformities, although it occurs in such small faulted masses that it is highly difficult to determine the startigraphic horizon of the beds exposed in a given block. A study of the attached geological plat shows the presence in the group under examination, of three isolated bodies of limestone completely surrounded by diabase. Literally they are "floating in a sea of diabase." In the northern portion of the property occurs a large body which has been distinctly faulted six times. This type of rock throughout the entire group maintains its standard light grayish color.

CONGLOMERATES.-A portion of the group is covered with Gila and Whitetail conglomerate, but as they have no bearing on the mineralogical aspect of the property, they will not be discussed.

FAULTING AND MINERALIZATION

As stated previously in the report the country at this point has been highly faulted, the accompanying geological plat showing sixteen distinct normal faults. These faults with respect to strike may be classified into two types: first, those having a northwest-southeast strike; second, those having northeast-southwest strike. As practically no work has been done on these faults at present it is in every instance impossible to determine their true dip. However, exploration by mining operations in other sections of the district has disclosed that the faults of the first type invariably have a dip of about 75 degrees

either to the norheast or southwest, whole those of the second type have a dip ranging between 55 and 90 degrees either to the northwest or to the southeast. Previous study has shown that the age of the recognizable faulting occurring in the Globe Quadrangle is divided into three periods: first, the intrusion faults which accompanied the diabase intrusion of the Mesozoic period; second, the post diabase-predacitic faults; third, the post dacitic faults. Mining operations combined with a close geological study of the entire quadrangle have shown that the primary sulphide ores were introduced and deposited at and following the postdiabase-predacitic fault movement, also that the majority of these faults showing mineralization are those with the northeast-southwest strikes. In no instance has mineralization been discovered in those faults of the postdacitic period. A large number of the predacitic faults are unmineralized and when this absence of mineral occurs it is practically impossible to classify and distinguish, from a field examination alone, between these two types, predacitic and postdacitic.

The large limestone body lying north and in contact with the Quartzite reef, together with the adjoining quartzite, has been widely faulted, and in every instance the fault zones at the surface are heavily iron-stained. Hematite and limonite float covers large areas on each side of these fault zones, a condition especially noticeable near the contact of the quartzite and limestone. Close examination of the face of the quartzite reef revealed copper carbonate stains near its base. The face of the quartzite in the gulch leading to the spring also carries copper stains. The small body of limestone lying about 550 feet south of the quartzite reef is traversed by a strong and well defined fault. The vein is composed almost entirely of magnetite, which near the outcrop has been partially oxidized to hematite. A shallow open cut shows that the vein has a width of about four

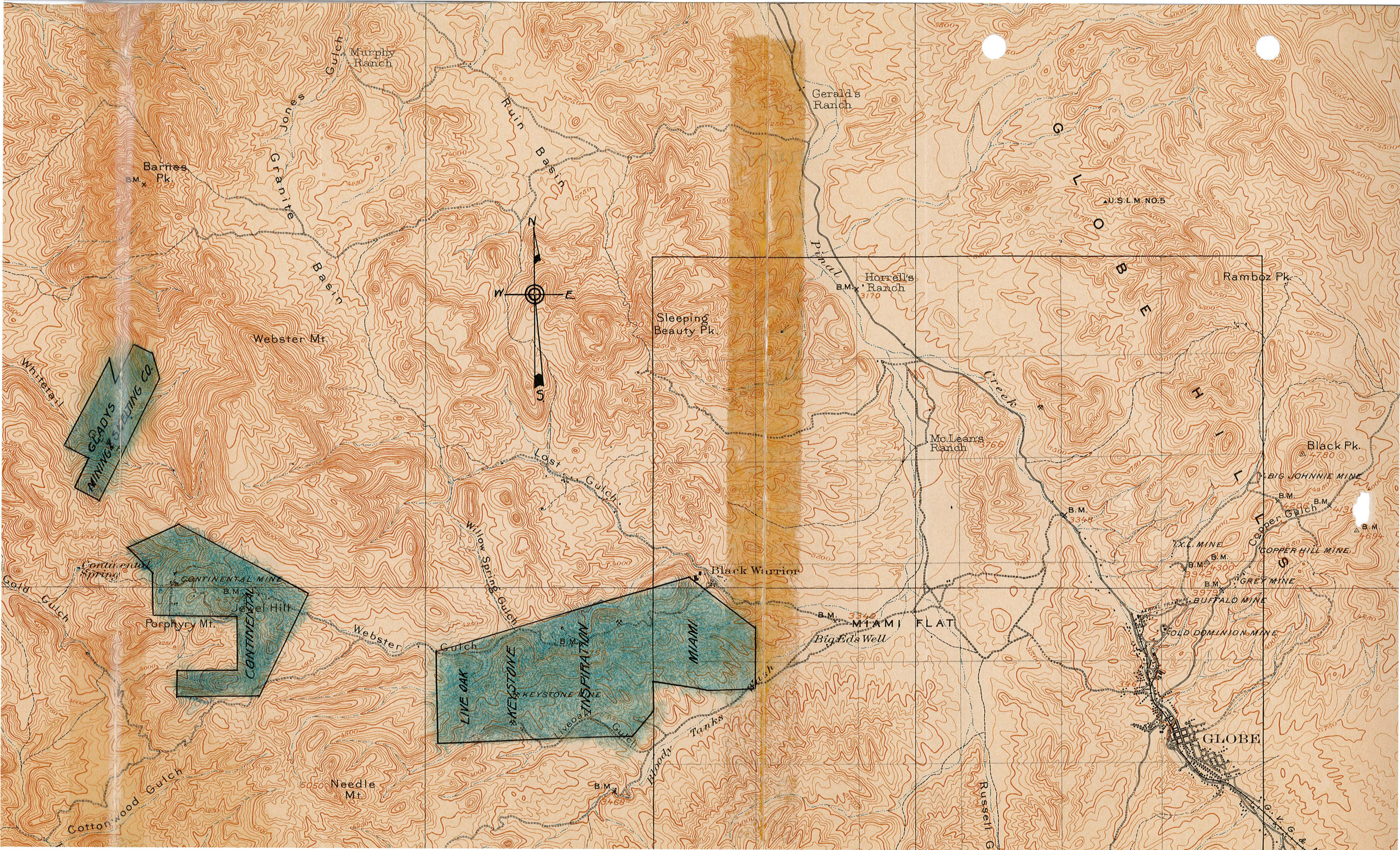
feet. However, both the hanging and footwall have been replaced to a remarkable extent and the exact width of the mineralization was undeterminable. Considerable replacement of the limestone along the strata lines by magnetite has occurred and magnetite float literally covers the surface. Assays of the outcropping of the vein and from an eighty-foot tunnel that is being driven to cut the vein all gave traces of silver and gold. Assays returning low percentages in copper have been secured from the tunnel. The small body of limestone located still further to the southeast carries some magnetite float and it is probable that it is also cut by an extension of the same fault.

CONCLUSION.

The presence of heavy iron-stained outcroppings and wide areas of hematite and limonite float with frequent copper stains prove that the faulted zones occurring in the limestone are correlated with the postdiabase-predacitic faulting, the age of the introduction and deposition of the sulphide ores. These faults also have the northeast-southwest strike, the type of strike which characterizes the majority of the mineralized lodes of the Globe Quadrangle. The surface closely resembles and geologically is practically identical with the Continental group. The latter has produced in the past a large tonnage of high-grade copper ore and is a proven property, being dormant at present because of the conservation policy of its owners--the Old Dominion Copper Mining & Smelting Company. Limestone is especially susceptible to replacement with depth, and should the heavy mineralization which is so strongly apparent on the surface extend to depth (and there is no evident reason why it should not) the property has an excellent prospect of developing with depth a commercial body of copper ore, not only in the lodes, but as replacement bodies throughout the limestone.

In my opinion the property warants a vigorous exploration and development program.

(Signed) R. G. Thomas.


Murphy Ranch
Jones Gulch
Granite Basin
Ruin Basin
Barnes Pk.
Webster Mt.
Gerald's Ranch
U.S.L.M. NO.5
Pinal
Horrell's Ranch
B.M. 3170
Sleeping Beauty Pk.
Ramboz Pk.
GLOBE HILLS
Whitetail
GLADYS MINING & STEELING CO.
Lost Gulch
Creek
Mc.Leary's Ranch
3766
Black Pk.
4780
BIG JOHNNIE MINE
B.M. 3348
Copper Gulch
B.M. 4300
B.M. 3942
B.M. 3979
I.X.L. MINE
COPPER HILL MINE
GREY MINE
BUFFALO MINE
OLD DOMINION MINE
Willow Spring Gulch
Continental Spring
CONTINENTAL MINE
Jewel Hill
Porphyry Mt.
CONTINENTAL
Black Warrior
Cold Gulch
Webster Gulch
B.M. 3345
MIAMI FLAT
Big Ed's Well
LIME OAK
KEYSTONE
KEYSTONE MINE
INSPIRATION
MIAMI
Bloody Tanks
GLOBE
Needle Mt.
B.M. 3468
Cottonwood Gulch
Russell G
G. V. G. & P. R. R.
N
S
E
W

GLADYS MINING & SMELTING CO

DACITE

DIABASE

WHITETAIL CONGLOMERATE

GILA " "

LIMESTONE " "

QUARTZITE

1" = 500'