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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: COMET

ALTERNATE NAMES:

NORTH STAR GROUP  
OATMAN NORTH STAR

MOHAVE COUNTY MILS NUMBER: 27C

LOCATION: TOWNSHIP 19 N RANGE 20 W SECTION 16 QUARTER N2  
LATITUDE: N 35DEG 02MIN 19SEC LONGITUDE: W 114DEG 24MIN 33SEC  
TOPO MAP NAME: OATMAN - 7.5 MIN

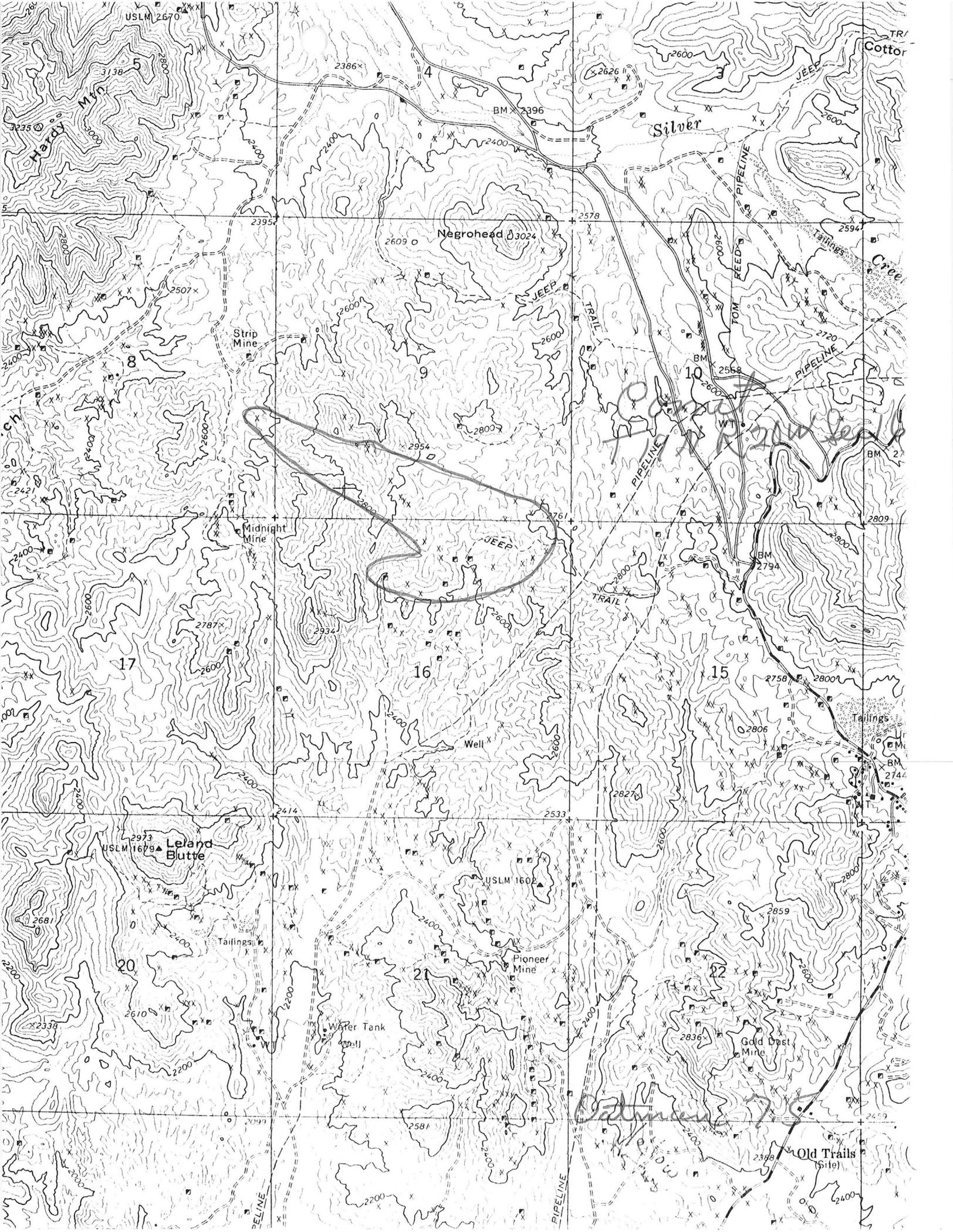
CURRENT STATUS: UNKNOWN

COMMODITY:

GOLD LODE

BIBLIOGRAPHY:

ADMMR COMET MINE FILE  
ADMMR MOHAVE MILL PROJECT  
WEED'S MINES HANDBOOK, VOL. XV, P 358; 1922  
RANSOME, F.L. "GEOL. OF OATMAN GOLD DIST. AZ"  
USGS BULL 743, P 31, MAP, 1923  
WEED'S MINES HANDBOOK, VOL. XVI, P 404-5, 1925  
ADMMR GEO FILE - GREAT BASIN GEM JOINT VENTUR  
VOL 6 (NORTH START)



COMET MINE

MOHAVE COUNTY

NJN WR 11/28/86: Sun River Gold Corp, 406, 837 W. Hastings, <sup>Vaporizer BC</sup> V6C 1B6, 604-662-7122, is drilling on State Land at T19N R20W, Sec 16 N2. This is probably the Comet Mine, Mohave County, MILS #27C.

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LEWIS HIND  
Mining Engineer.

( COPY )  
- - - -

Oatman, Arizona.

Nov 26, 1915.

To A. C. Parsons,  
625 Market Street,  
San Francisco, Cal.

Dear Sir:-

According to your instructions I have made an examination of the property known as the "North Star" Group, and beg herewith to submit to you my report.

LOCATION *secs 8, 9, 15 & 16, 19N, 20W*

The property consists of seventeen claims situated in the San Francisco Mining District of Mohave County, Arizona, about one and a half miles from the Town of Oatman, and adjoining the property of the Gold Reed Mining and Milling Company, to which point there is a reasonably good wagon road, which could at little cost be extended to such point as may be decided on for the erection of the necessary camp buildings, and for the carrying on of the projected work.

TITLES

You have recently had the group surveyed, therefore there is no necessity for me to enter into details as to acreage, etc., and the title has, I presume, been examined and is satisfactory.

TOPOGRAPHY

The claims are located in the main range of hills lying West of Silver Creek, and towards the South these hills are rounded off but cut by numerous washes and gulches. There is one main wash draining towards the South, and many deep gulches are shown. Towards the North west end of the property, a description of which ground is not essential in this report, the surface of the ground is much more broken, and precipitous escarpments, and deep declivities are evident. The maximum difference in elevation on the ground covered by this report is about 350 feet.

Vegetation is practically nil. Water is found in one place on the property, probably sufficient for all camp purposes.

The Gold Reed mine, adjoining, has attained a depth of 375 feet, and is making a considerable quantity of water, and I anticipate that with depth your property will make sufficient water for all milling purposes, up to a capacity of 100 tons daily.

HISTORICAL

The history of the Tom Reed-Gold Road District is now familiar, but it is well to emphasise the statement that rarely are values of any moment found at the surface, except in isolated spots

and small stringers. The "Tom Reed" and "United Eastern", both well known mines, never had any milling ore on the surface, and in fact the upward limit in values appears to be 300 feet or thereabouts below the outcroppings. Where there is a well defined fissure as shown on your ground, there is reason to consider that intelligent development work may open up bodies of commercial ore.

## GEOLOGY

The area comprised in this group is covered by Tertiary Lava flows dipping gently to the South East. The greatest part of the area exposed is what is generally classified as the earlier Andesite ( Schrader ), but on the Southeastern edge of the property this earlier andesite is buried beneath the later or green chloritic andesite flows. Towards the Southern end of the property also, several of the most prominent peaks are capped by this later flow.

The contact between these flows is here marked by a bed of so-called shale, deposited in the basins formed by the uneven floor of the eroded earlier andesite. This bed has the apparent stratification and physical appearance of a lime shale, but under the lens a scoriaceous structure is noted. An exact determination of this rock can only be made by the study of sections under the microscope, hence it does not come within the scope of this report. However it is probable that it is a bed of volcanic ash thrown out in the interval between the two andesite flows. The misleading structure can be accounted for on the hypothesis of wind stratification and then partial re-fusion or metamorphosis of these thin beds by the flow of later or green chloritic andesite that later covered it.

Following the first flow of andesite there was an intrusion of rhyolite, in the form of a dyke, running almost due East and West that cut through the older andesite, but as it passes into the main mountain range North of Catman is covered by the later flows. This dyke has a maximum width of thirty feet on the North Star Extension claim, and a minimum width of six feet on the Western end of the North Star claim. Faulting action, probably previous to the intrusion, has produced two displacements in the then existing fracture that the dyke filled.

The main fault movement on the property has a North-easterly trend, and has caused a considerable displacement of the Northwest, or what will be later referred to as the older, vein system. This main fault is normal, and dips about 45° to the South. Another smaller fault plane, striking a little East of North with an almost vertical dip intersects the main fault about four hundred feet Northeast of the Tripod shaft. The broken material in the fault zone, and at this intersection furnished a channel for the ascending hydrothermal waters, resulting in a silification of the breccia, and an alteration of the andesite walls. It is considered that this action has occurred subsequent to the rhyolite intrusion, and was caused by it. Silicified shrinkage cracks in the rhyolite dyke and the Western vein system show similar characteristics, and undoubtedly were formed at the same time. All veins of this type are covered by the later andesite flow where present.

### VEIN SYSTEM.

Prior to the faulting action and the rhyolite intrusion, there existed a vein with a Northwest strike, and a dip of 60° to the West. It is what is known as a spar vein, containing quartz, calcite, adularia and included andesite fragments, as gangue materials. Strike faulting, contemporaneous with the main faulting, is shown in the center of this vein. This strike faulting is a characteristic of the best proven veins in the District, and is considered a favorable indication, as it has permitted the acidic hydrothermal waters to ascend in the vein, and cause a replacement, partial or complete, of the calcite contents by quartz.

The main faulting, above mentioned, has caused a lateral surface displacement of this vein about 300 feet. The turn of the ends of the vein at the fault zone is quite pronounced. Between the faulted ends of the vein there is no sign of the broken fragments of the quartz part of the vein. Instead, a felsitic material, determined as a silicified andesite, is present. The structure shown in this locality, together with the strike faulting is taken for proof of the theory that this vein is older than the intrusion of rhyolite and the solutions coming from it.

At the present time there are two recognized types of ore bearing veins in the District. The Gold Road vein is a quartz calcite and andularia gangue formed in connection with a rhyolite dyke, whilst the Tom Reed and United Eastern are spar filled fissures, in which the calcite has been replaced by the quartz of the hydrothermal waters emanating from the rhyolite intrusions.

The North Star Group embraces a vein system of each of the types just mentioned. The Eastern or older vein (on which the Tripod shaft is located) is a spar vein of the United Eastern type, while the Western vein system is typical of the Gold Road deposit.

### PRESENT DEVELOPMENTS & C.

Present developments on the property consists of three shallow shafts, from fifteen to twenty feet deep each, with several location cuts and openings on the Eastern vein system. On the Western vein system a tunnel, (leading from a chamber, known as the "Grotto" cut out and used as a camping place) has been driven from the canon level for a distance of about fifty feet on a branch vein. There are also several location and shallow cuts on this vein system.

### SAMPLES.

Many samples have been taken by Mr. R. R. Moore and assayed by me, and invariably showed some gold content, altho' many of them were taken from the rhyolite dykes. The result of Mr Moore's work is I believe now at your disposal, and in view of his very thorough and competent sampling it would appear to be quite unnecessary for me to add to it in any way, and any further samples taken would not in any event affect the conclusions arrived at by me.

## CONCLUSIONS.

There are three possible ore zones on the property. Two of these are on the old vein, one on each side of the fault. The third is on the Western vein system where the two parts of the vein are paralleling or in the rhyolite dyke near the "Grotto". Surface sampling would indicate that the latter has the better surface values and is in that respect the best prospect, although the fault fracturing and subsequent silicification of the other two offers encouraging promises as depth is attained.

The reason for confining my conclusions to these three zones is due to facts shown by past work in the District. It would seem to have been proven, by the developments on the United Eastern at least, that there has been a leaching action in the upper part of the veins due to the alkaline sulphates contained in the surface waters, causing the gold to be taken into solution, and precipitated below thus causing an enrichment at depth.

In view of these facts it would be considered advisable to sink a deep shaft at such a point on the property as would give access to these three places with the least amount of cross-cutting. The expenditure required to do this and thus prove up the property would not be excessive, and is warranted by the conditions presented.

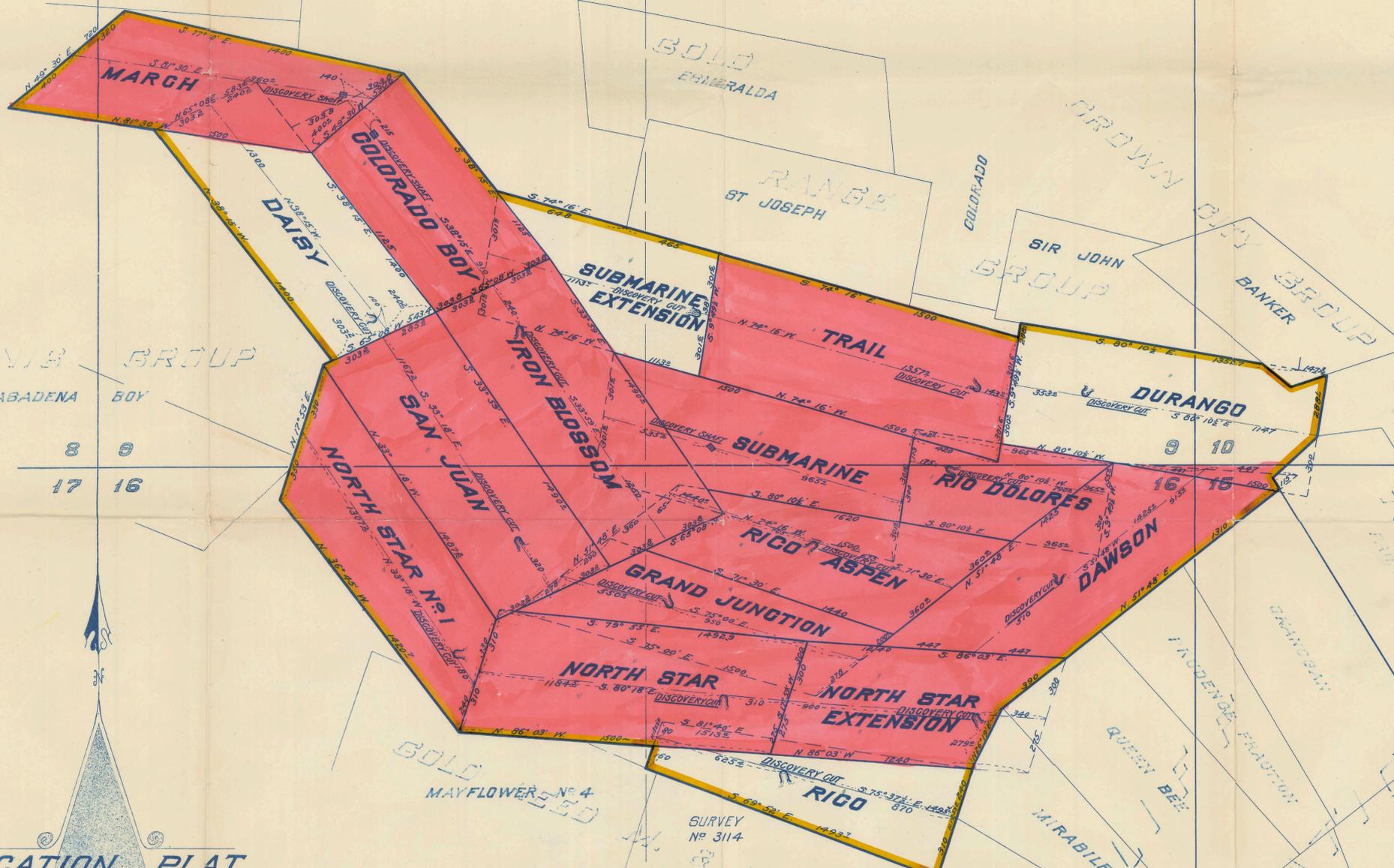
I am gratified to be able to state that the showings justify me in recommending this property as one of the very attractive in the District, and well worthy of full exploitation.

(Signed) Lewis Hind.

CENTER OF SECTION 9

T. 19 N., R. 20 W., G. & S. R. B. & M.

IVANHOE CONS. MINES Co.  
IVANHOE No 3



GRANNY'S GROUP

PABADENA BOY

8 9  
17 16

LOCATION PLAT  
OF THE  
**NORTH STAR GROUP**  
SAN FRANCISCO MINING DIST.

MOHAVE CO., ARIZ.

FOSTER & RICKETSON  
SURVEYORS  
DATMAN, ARIZ.

SCALE: 1 IN. = 300 FT.

CENTER OF SECTION 16

SURVEY No 3114

MAYFLOWER No 1 Co.

DOROTHY

QUEEN BEE

HELENE

MIRABILE FRAG

INDUCEMENT

GRANDCHILD

TOM REED

SIR JOHN GROUP

BANKER

CROWN

COLORADO

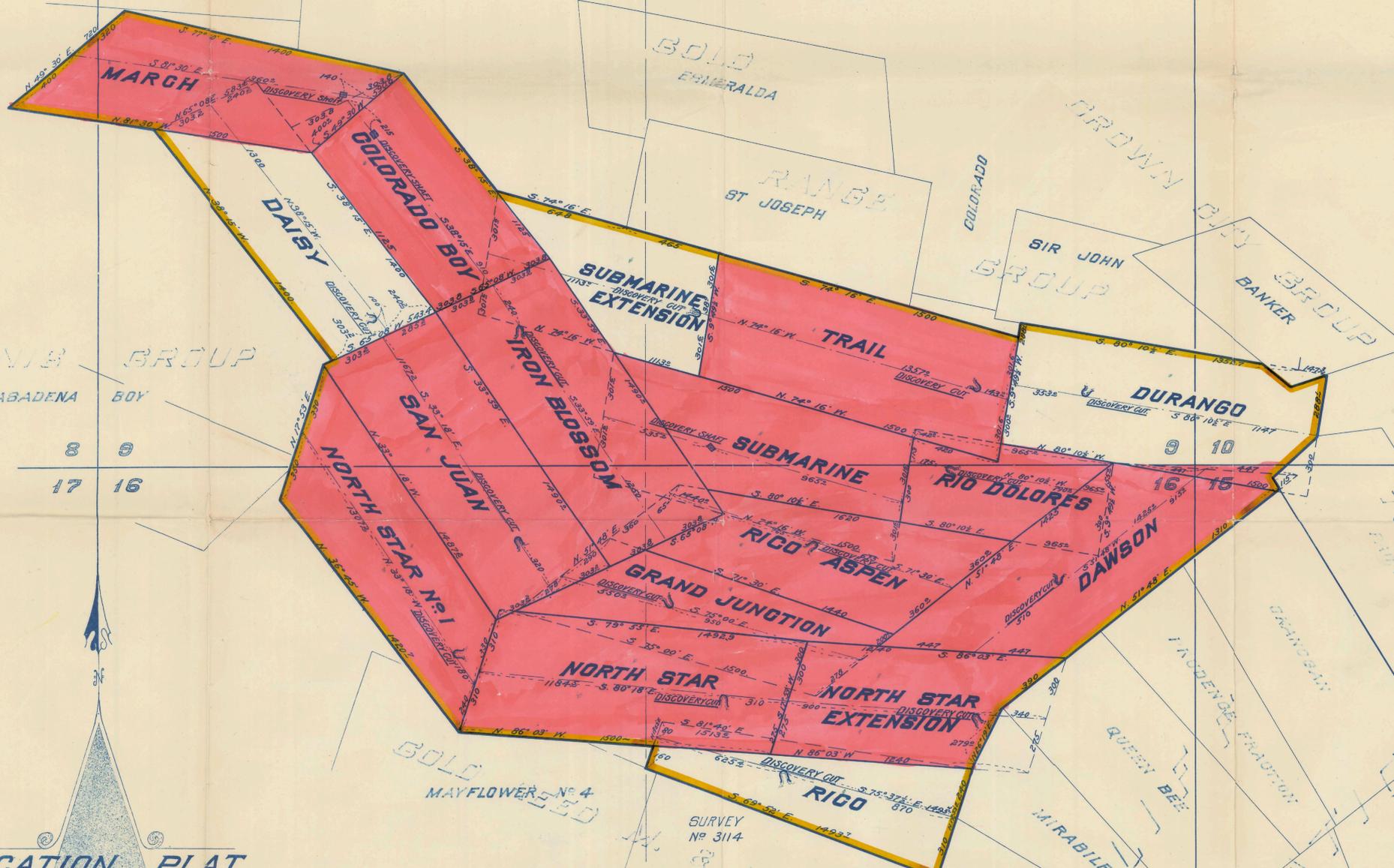
RANGE ST JOSEPH

GOLD EMERALDA

CENTER OF SECTION 9

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GOLD EMERALDA

SKETCH MAP  
SHOWING  
GEOLOGY AND CONTOURS  
OF PART OF  
**NORTH STAR GROUP**  
SAN FRANCISCO MINING DISTRICT  
MOHAVE COUNTY, ARIZONA.

**LEGEND**

 Old Andesite	 Old Veins
 Later Andesite	 New Veins
 Rhyolite	 Parting Tufa
Scale 1"=100'	 Silicified Andesite

*Scientific*

