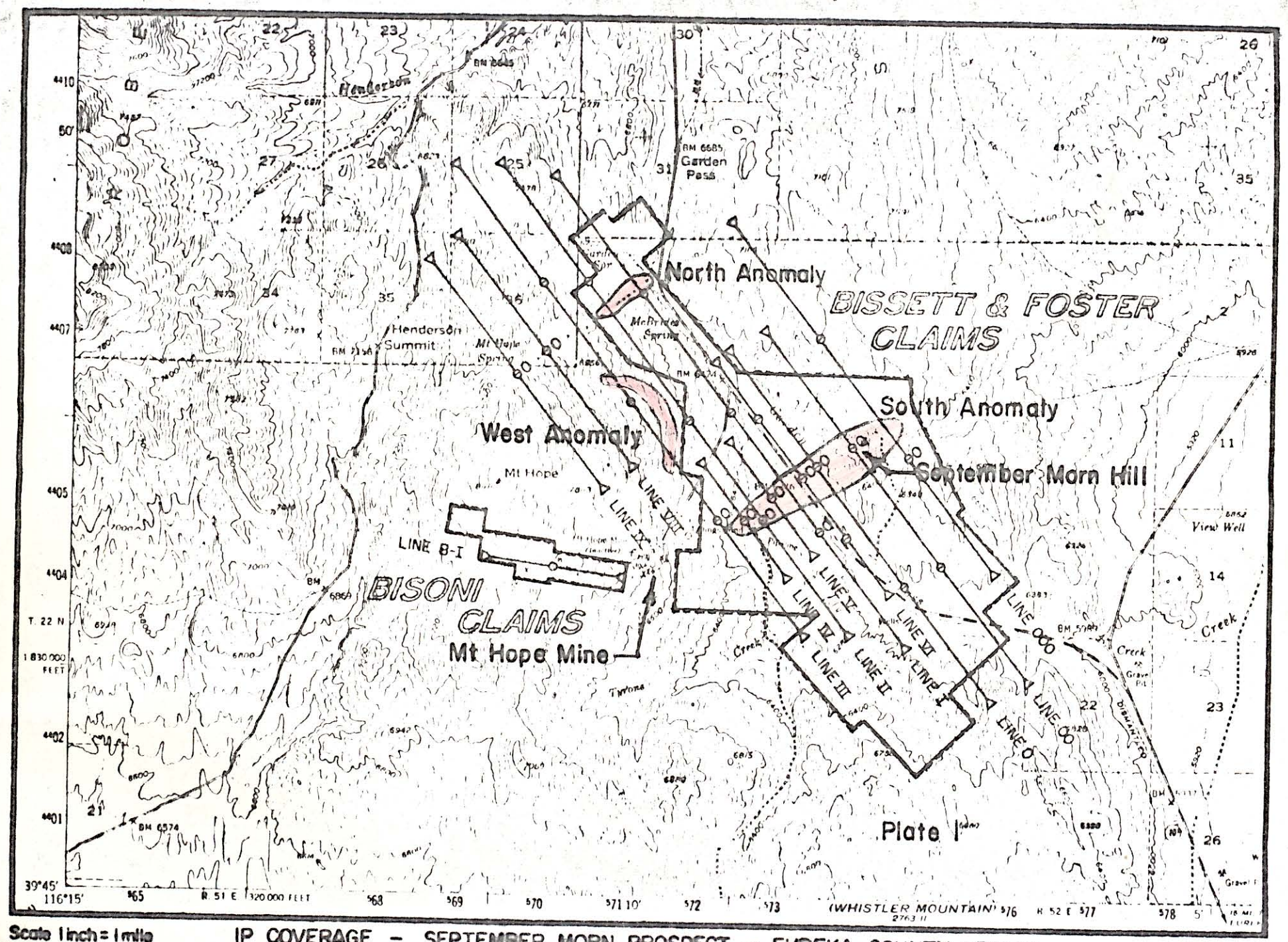
3220 · 0038

David H. Bissett
3706 SOUTH 198th STREET
SEATTLE, WASHINGTON 98188

Consulting Geologist
PHONE: TA 4-2530

REPORT ON THE GARDEN VALLEY PROSPECT



Scale 1 inch = 1 mile

IP COVERAGE – SEPTEMBER MORN PROSPECT – EUREKA COUNTY, NEVADA

Sept., 1969

David H. Bissett
3706 SOUTH 198th STREET
SEATTLE, WASHINGTON 98188

Consulting Geologist
PHONE: TA 4-2530

SETTING AND ACCESS

The Garden Valley prospect is located 30 miles north of Eureka, Nevada, and consists of the September Morn prospect, the Mount Hope mine, and the alluviated valley between these two properties. The elevation is approximately 6,000 feet in the prospect area and is subject to winter snows, which are not, however, so severe as to curtail either exploration or mining. The area is desert, with sage brush vegetation. A paved highway between Ely and Elko, Nevada, runs across the prospect.

The September Morn prospect consists of 11 claims, centered on or about September Morn hill, which is a knoll on the east side of the Garden Valley alluvium. The Mount Hope mine is located on the southeast margin of Mount Hope. Between the two prospects is alluvium, which drilling has indicated is no more than 50 to 100 feet deep in the valley. The mine and the prospect are separated by a distance of approximately two miles.

SEPTEMBER MORN PROSPECT

The eleven September Morn claims were located in 1933 to investigate showings of malachite and azurite in the shales of September Morn hill. In the vicinity of September Morn hill the rocks consist entirely of the Vinini formation, predominantly shale with minor outcroppings of dolomite and quartzite. There are three or four shallow pits and shafts on the property which were driven on copper stain along faults and in breccia pipes. There are at least three breccia pipes on September Morn hill, which have been silicified in two instances with minor copper showing, and in one instance is a limonite cemented breccia with fourteen hundred ppm copper in the limonite. A large number of dikes and lenses of rhyolite porphyry have intruded the Vinini in the vicinity of September Morn hill. One of these lenses, approximately 150 feet by 50 feet in dimension shows a leached outcrop of limonite after chalcopyrite and contains abundant copper stain.

Both the Vinini shale and the dikes and lenses of rhyolite porphyry have been shattered by a large number of closely spaced fractures at September Morn hill. These fractures are irregular in strike and dip.

In the 1950s three shallow holes to 250 feet were drilled on September Morn hill; this drilling encountered limonite in the Vinini above the water table and pyrite below the water table. In addition, trace quantities of chalcopyrite, chalcocite, molybdenite, and other base metal sulfides were found dispersed in the drill holes in anomalous amounts, but below ore grade.

David H. Bissett
3706 SOUTH 198th STREET
SEATTLE, WASHINGTON 98188

Consulting Geologist
PHONE: TA 4-2530

MOUNT HOPE MINE

The Mount Hope mine is situated in the southeast corner of the Mount Hope intrusive, which is a quartz porphyry rhyolite approximately two miles in diameter. The Mount Hope stock contains no mafic minerals, and has been described as an alaskite; however, it contains abundant pyrite and limonite after pyrite, so it can be reasoned that mafic minerals have been converted to pyrite by a broad scale hydrothermal alteration process.

The mine is a contact metamorphic, or pyrometasomatic occurrence, with zinc and lead ores being found in pods and lenses adjacent to the contacts of roof pendants in the Mount Hope stock. It was worked by Callahan Mines prior to World War II. Recent drilling has found high grade copper ore within the Mount Hope mine workings. Drilling suggests that this high grade ore consists of small isolated bodies.

GARDEN VALLEY PROSPECT

In May of 1968, I inspected both the September Morn prospect and the Mount Hope mine. On the basis of this investigation, I decided that the contact between the Mount Hope stock and the Vinini formation to the east and south of the Mount Hope stock should be explored. Accordingly, I directed that the alluvial valley between the prospects be located, and this was done, with 188 claims in all.

In the fall of 1969, eleven IP lines were run over this valley. Three anomalies were found, as shown on Plate 1 enclosed. These anomalies will be referred to hereafter as the North Anomaly, the South Anomaly, and the West Anomaly.

HISTORY OF RECENT EXPLORATION

In the summer of 1970 I drilled a hole to a depth of 660 feet at Station "O" of line "O". Although no ore was found by this hole, trace quantities of chalcopyrite, molybdenite, sphalerite, and galena were found in the sediments of the Vinini formation and in intrusive dikes of rhyolite porphyry. A geochemical analysis of the drill hole from 460 to 660 feet was done, as shown on the following page.

In the summer of 1971, the Garden Valley and September Morn prospects were optioned to the APCO Oil Company. APCO drilled four holes on the South Anomaly, one of them to a depth of 1500 feet. No ore was found; however, trace quantities of base metal mineralization were found throughout these holes.

SMI-A Sample No.	ppm Copper	ppm Molybdenum	ppm Lead	ppm Zinc	ppm Gold	ppm Silver
450-460	180	13	80	140	-0.1	-1
460-470	185	15	60	145	-0.1	-1
470-480	160	16	100	110	-0.1	-1
480-490	185	21	260	150	-0.1	1
490-500	165	40	320	175	-0.1	1
500-510	165	31	200	110	-0.1	1
510-520	180	42	320	175	-0.1	1
520-530	145	30	200	140	-0.1	-1
530-540	140	41	150	120	-0.1	-1
540-550	170	34	150	120	-0.1	-1
550-560	220	49	1000	360	-0.1	1
560-570	175	56	280	140	-0.1	1
570-580	175	63	140	85	-0.1	1
580-590	205	66	180	95	-0.1	1
590-600	265	92	420	150	-0.1	1
600-610	270	94	350	145	-0.1	1
610-620	275	79	310	135	-0.1	1
620-630	285	137	240	150	-0.1	-1
630-640	195	116	120	70	-0.1	-1
640-650	190	123	110	70	-0.1	-1
650-660	220	113	160	85	-0.1	-1

By Gary M. Fechko

Gary M. Fechko

ROCKY MOUNTAIN GEOCHEMICAL CORPORATION
Reno, Nevada August 28, 1970

David H. Bissett
3706 SOUTH 198th STREET
SEATTLE, WASHINGTON 98188

Consulting Geologist
PHONE: TA 4-2530

In 1970 and 1971 the Mount Hope mine and surrounding claims were under option by the owner, Hal Jensen of Ely, Nevada, to Phillips 66 exploration. Considerable IP lines were run by Phillips 66, followed by a large amount of drilling. This drilling found some small bodies of high grade ore, but failed to find a large low grade ore body of porphyry type. Drilling by Phillips 66 did not include the West Anomaly, which lay on their ground.

At present, none of the properties are at option.

SUMMARY

Although no ore of porphyry type has been found to date on the prospects, alteration and trace quantities of mineralization have been found over an impressively large area. The geology and alteration of the Mount Hope stock suggests that it is an inner barren core of porphyry type mineralization, and the anomalous base metals found in the Vinini sediments surrounding the Mount Hope stock, over an extent of several miles, suggest that this is the alteration halo around a porphyry type mineralization. Two of the anomalies have not been drilled, namely, the West Anomaly and the North Anomaly of the Garden Valley and Mount Hope prospects. The North Anomaly should certainly be drilled to determine whether a higher grade of mineralization might be located there; this is particularly attractive for exploration because it will be within the limestones of the Vinini formation. However, the most favorable anomaly in appearance is the West Anomaly, which is in the arcuate shape and in the location one would expect for the contact on the east between the Mount Hope stock and the Vinini formation.

RECOMMENDATIONS

It is recommended that IP lines be redone over the North and West Anomalies in order to precisely locate them again. Thereafter, they should both be drilled to the extent necessary to determine what is causing the anomalies. In particular, the West Anomaly should be drilled.