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MINERAL  
CO.

ITEM 48

U.V.

Place: Walker River Reservation, Shurz, Nevada  
Area: Wild Horse Canyon  
Section 29, T11N, R30E  
For: Walker-Martel Mining Company, Reno, Nevada  
By: Robert E. Holt - January 20, 1966

Mineral Co.

Summary and Conclusions:

The prospect consists of galena, some sphalerite, very minor chalcopyrite, and barite disseminated in a marbelized limestone. The country rock is a segment of the excelsior which, in all probability, has been thrust into the area. The marbelized lime may be either a lens in the Excelsior or a small segment of limestone exposed in a window in the Excelsior. There undoubtedly is faulting in the immediate vicinity of the prospect.

The mapping was done on a 4x blowup of a photo and is not a planometric map. No attempt was made to break the Excelsior down; however, any future work should include an attempt to find a marker bed in it to use as an aid in unraveling the structure of the area.

Recommendations:

1. If the I.P. that is now being run is anomalous, the limits of the anomaly should be determined if a modest size lead-silver ore body is considered worth pursuing.
2. Since the mineralization is probably of a fissure or a replacement type and will be either structurally or stratigraphically controlled, the geology should be carefully mapped. If it is determined from the I.P. data that the body is near surface, it may be expeditious and prudent to drill the anomaly with one hole prior to the mapping program. This would accomplish a twofold purpose: one, to determine if the mineralization is indeed there and worth



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pursuing and, two, to validate the ten claims that have been staked. I strongly recommend that additional claims be staked prior to diamond drilling so as to protect the present land position.

3. Plans should be formulated to either continue exploring the prospect, if a discovery is made, or to actively promote it to a group that will explore it. Sunshine Mining Company or Rosario Honduras Mining Company would certainly be potential prospects.

Geology:

The Wild Horse Canyon prospect is situated in the very rugged, steep-walled Wild Horse Canyon. It is in a block of the middle Triassic Excelsior formation. According to W. L. Wilson's report dated 12/27/65, the prospect is situated on the eastern edge of a large east-west trending magnetic low. The significance of this relationship, if any, is not readily apparent.

The prospect itself is not particularly spectacular. The mineralization consists of pods and disseminations of galena with barite in a marbelized limestone. The greatest concentrations of mineralization are in the two main prospects which are in the small arroyo that contains the marbelized lime. Throughout the canyon area small prospects were noted that contained some galena and reportedly some of the larger ones carried values in silver.

The arroyo in which the main prospect occurs appears to be a major north-south structural feature. West of it the metavolcanics and interbedded lenses of limestone of the Excelsior strike generally northeast and dip strongly northwest. In this western area, the sequence is well-exposed and, if need be, could be measured for use in structural interpretations locally. East of the arroyo the situation changes abruptly. Here the beds of the Excelsior strike in various directions, have flat dips, and are broken and contorted. Present



in this eastern block is a light gray, poorly consolidated tuff bed that can be traced for some distance. Actually, it is the only unit that gives any evidence of the attitude of the beds in this block. Using the tuff bed as a marker, there is a suggestion that the east block is folded into a gentle syncline that plunges to the southwest along its northeast-southwest axis. This is by no means a mapped fact.

Wilson has suggested that the limestone, in which the mineralization is found, is actually a part of the Luning limestone which peeps through an overriding block of Excelsior. This is certainly a reasonable suggestion and deserves serious consideration. An alternative to this is that the limestone block is a lens in the Excelsior that has been mineralized.

None of the other units of the Excelsior in the area appear to be mineralized or altered. Immediately overlying the mineralized lime unit, or which is a part of it, is a brecciated and silicified zone which could have been caused by faulting. It is possible that this zone could be a guide to the mineral-bearing lime.

The Excelsior in the Gillis range is generally held to have been involved in the west-to-east movement attributed to the Gillis thrust. It is possible that Wild Horse Canyon is a large tear fault which has also been down-dropped to the north. The arroyo in which the prospect is situated quite possibly could be the trace of a normal fault with a strike slip displacement that preceded the down-dropping of the Wild Horse Canyon fault, but which post-dates the period of thrusting. The intersection of these two faults would provide a potential loci for mineral deposition.

*Robert E. Self*



Place: Walker River Reservation, Shurz, Nevada  
Area: Wild Horse Canyon  
For: Walker-Martel Mining Company, Reno, Nevada  
By: Robert E. Holt - March 28, 1966

WILD HORSE CANYON - Addendum to 1/20/66 Report

Geological Considerations

The surface geology for this prospect is shown on the map which accompanied my January report. The recently completed hole at 50' south on line 0 correlates well with the surface geology and substantiates the presence of the Gillis thrust in the Area. The hole was unusual in that it is located approximately 100 feet from outcrop in a high, relatively narrow canyon and yet penetrated 50 feet of gravel overburden. There are three distinct rock type changes in the hole. From 50' to 70' is a dark gray metavolcanic, probably excelsior in age. Immediately below this and continuing to 128' is a zone of highly crushed and bleached metavolcanic (?), also probably excelsior in age. This overlies a dark gray to black shale or slate which is locally calcareous, probably graphitic, and contains very fine hairlike seams of sulfides which, when looked at with the hand lens, are composed of predominantly pyrite with some chalcopyrite.

Geophysical Considerations

The 58 feet of bleached and crushed metavolcanic represents, in my opinion, the portion of the excelsior formation which acted as a glide zone for the movement of the thrust. This mylonized unit contains considerable gouge and could quite possibly, if saturated with water, due to what is known as membrane effect, produce an I.P. anomaly.

The black shale, which probably is graphitic, might also be considered as a source for the I.P. anomaly. However, unless this unit is steeply dipping,



one would expect an anomaly of much broader areal extent if it were the source of the anomaly.

Sections of the core from hole #1 have been sent to McPhar for determination for I. P. effects. The core from the mylonite zone should be tested after it has been saturated with water so as to duplicate the environment from which it was taken. It is extremely difficult to make recommendations for future drilling or additional I.P. work without having the results of these tests. Obviously, if either one or both rock types do have I.P. effects, further work of any kind in the Area would be hard to justify. On the other hand, if they fail to give I.P. effects, then further work is clearly justified if the size and type of target that is suggested by the existing I.P. anomalies is of interest to the company.

The I.P. anomalies we now have, if they cannot be explained by tests on the core, are best explained as two ~~en~~ echelon fault or shear zones that are mineralized. The mineralization appears to "swell" and "pinch" along the zones, either from a widening or narrowing of the zone or by replacement of the wall rocks by the ore minerals. If it is a true sulfide zone, as McPhar feels, and which they approximate to be 100' wide, we are probably dealing with fairly large replacement bodies in the limestone member of the Luning formation. If this is true, it is entirely possible for a hole to pass within inches of a mineralized block and to have absolutely no indication of the near presence of mineralization. Exploration for bodies of this type, particularly if the area is covered and the trace of the structure is not visible on the surface, requires precision hole placement and persistence, for it is axiomatic that there will be a significant percentage of barren holes drilled.



It is interesting to note that the general trend of the I.P. anomaly is toward and roughly coincident in strike direction with a large air magnetic low west of it. One can always speculate that the Wild Horse Canyon prospect is peripheral to a much larger mineralized area which is represented by the magnetic low. If the classical horizontal mineral zoning pattern is evoked, it is feasible to suggest that the lead mineralization definitely represents the peripheral zone of a possible porphyry copper type mineralization associated with the magnetic low. There are several hypothetical situations that can be called upon to provide an explanation for a connection between these two phenomena; however, since this report deals specifically with the Wild Horse prospect, no attempt at such a correlation will be attempted.

#### Recommendations

No further work is recommended if the core that was sent to McPhar Geophysics Laboratories for testing has sufficiently high I.P. values to explain the anomaly.

The following recommendations are to be followed only if the above does not pertain and if company policy permits exploration for the above-described type of ore body.

1. Hole #2 should be spotted and drilled on the geophysical anomaly in accordance with the recommendations of the McPhar people, which I believe is 100' south of 0X00 on line 0.
2. If the hole recommended above encounters significant mineralization, additional I.P. work should be scheduled to further trace the zone of interest.
3. If significant mineralization is encountered in hole #2, drill hole #3 at 200' south on line 2W.



4. Claim Perfection.

The only indication that we have as to a possible dip of an ore zone, if it exists, is the fact that hole #1 missed mineralization completely. This suggests that the zone dips to the south or dips very steeply to the north. Therefore, claim perfection should include claims primarily along the NE-SW strike of the projected mineralized zone as shown on the McPhar I.P. anomaly map. The I.P. data suggest that a second zone is located 250' north of the main zone. This should also be protected by claim perfection. Both anomalies appear to diminish in intensity or fade out completely to the NE; therefore, probably only one claim length is necessary for protection in that direction.

Claims 1, 2, 3, 4, and possibly 5 and 6 (as shown on the McPhar I.P. map) should be perfected. Additional claims might be considered west of claims 1 and 3, south of claim 1, and east of claims 4 and 6. These additional claims, to be consistent, should be laid out in an E-W direction similar to those already staked.



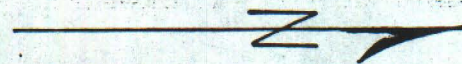
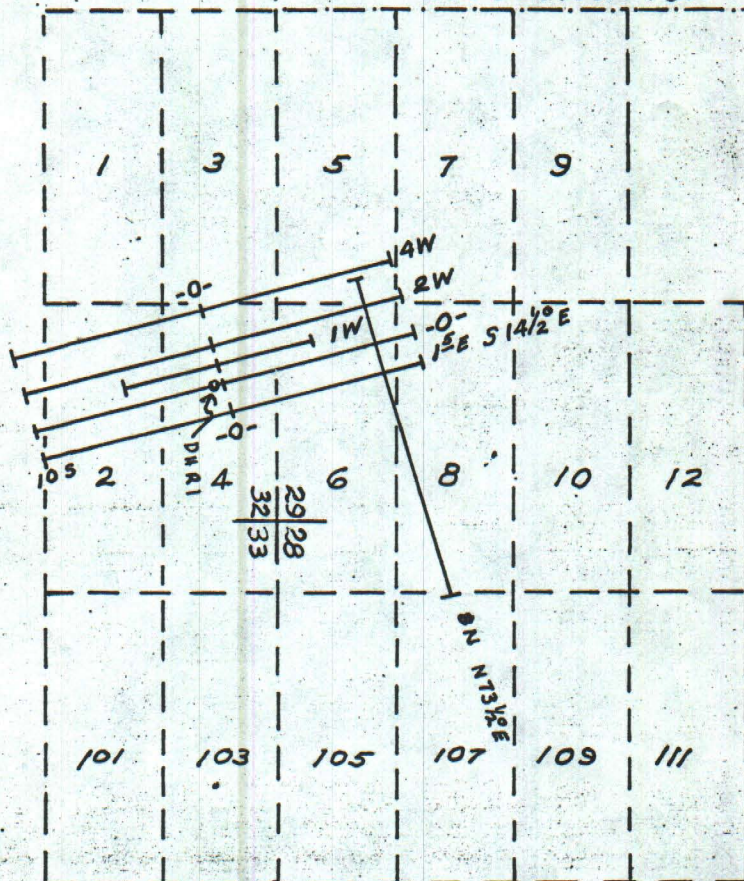


Walker Martel  
Mng Co.

Wild Horse Canyon  
Rho Claims



RESERVATION BOUNDARY



WILDHORSE CANYON  
I.P. SURVEY LINES & RHO CLAIMS  
T. 11N, R. 30E.

OVERLAY ON 1:12,000 BASE MAP

Scale:  $1'' = 1000'$





TABULATION OF GEOCHEMICAL RESULTS--DH R1, WILDHORSE PROSPECT

Sample No.	footage	interval	Cu	Mo	all values in ppm		Ag	Co	analyzed by: RMGCL OXY
860R	69.0-82.0	13'	10	4	35	30	1		X
861R	82.0-94.0	12'	5	2	5	20	1		X
862R	94.0-106.0	12'	10	3	10	20	1		X
863R	106.0-120.0	14'	18	7.0	33	38	1.3	7	X
864R	120.0-130.5	10.5'	30	24.4	57	69	1.1	11	X
865R	130.5-142.0	11.5'	60	10.9	38	63	0.7	10	X
866R	142.0-153.0	11'	59	9.0	28	77	1.0	17	X
867R	153.0-163.0	10'	100	5.0	21	85	0.9	20	X
868R	163.0-174.0	11'	49	3.5	16	68	1.1	17	X
869R	174.0-184.5	10.5'	67	10.5	21	70	0.6	14	X
870R	184.5-196.0	11.5'	49	34.9	72	106	1.6	16	X
871R	196.0-209.0	13'	42	8.0	39	193	0.9	14	X

compiled by W. L. Wilson  
5-5-66