

Wild Horse
Canyon

COPPER HILL

- 4 page size mine maps of workings in the area.
- Geologic report.
- DH Delta 1, 2, & 3 narrative and graphic logs.
- Drill hole assays.
- Geochem on Intrusive outcrop with map.
- Claim map showing I.P. plan lay-out.

WILD HORSE CANYON

- Rho Claim and I.P. layout.
- Geologic report.
- DH R-1 tabulation geochem samples.



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

OVERLAY ON 1:12,000 BASE MAP

Scale: $1'' = 1000'$



29-28 $\frac{1}{4}$ cor

N

10

8

5

29	28 COR
32	33

4

/

2

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

Summary and Conclusions:

The prospect consists of galena, some sphalerite, very minor chalcopryrite, 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 planimetric 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

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. Selt

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 chalcopryite.

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.

A handwritten signature in dark ink, appearing to read "Robert E. Holt". The signature is written in a cursive style with a large, looping initial "R".

WALKER RIVER PAIUTE RESERVATION

Walker Martel Mining Company

Wild horse

DDH-Nx: 0.0 - 209.0'

Bottom: 209.0 feet

CANYON R-1

Vertical

- 0.0 - 48.0 Gravel, sand, and rock fragments - stream fill.
- 48.0 - 49.0 Fault gouge with a few fragments of silicified porphyry(?) containing 3-5% limonite pseudomorphs after pyrite; small amount sulfides in fracture which dips 75°; 20% gypsum.
- 49.0 - 53.0 Metavolcanics, probably Excelsior in age; slightly to moderately chloritized; 5-20% gypsum; $\frac{1}{2}$ -1% pyrite; numerous calcite veinlets.
- 53.0 - 56.0 Metavolcanics; brecciated with numerous fractures at 60°, 85°, and 35°; fractures have calcite, limonite, pyrite, and small amount arsenopyrite; at 65' $\frac{1}{2}$ -3/4" veinlets calcite with $\frac{1}{2}$ -1% pyrite and a few pseudomorphs limonite after pyrite; at 56' highly brecciated with 65° fault with clay.
- 56.0 - 60.0 Metaquartzite, chloritized; completely brecciated at 56-57'; recemented by calcite at 56-57' with 3-5% pyrite, mostly in veinlets with calcite; talc on fractures; small amount vanadinite at 57'; approximately 5% pyrite, pyrrhotite, and arsenopyrite at 58' with a trace of chalcopryite; a fault dipping 50° at 59' with gypsum and pyrite; a fault at 60' dipping 85° with 3-5% pyrite and arsenopyrite.
- 60.0 - 66.0 Metavolcanics, highly chloritized and argillized with calcite stringers up to $\frac{1}{2}$ ", and with scattered sulfides.
- 66.0 - 119.0 Fault gouge and clay with occasional fragments metavolcanics; metavolcanics usually completely brecciated and crushed with occasional veinlets of calcite and quartz; highly argillized and with some chlorite; occasional pyrite with 2% pyrite at 71'; fragments usually rounded; traces chalcopryite and galena; slickensides in all directions at 94-106'. This gouge believed to have been formed at intersection of two high-angle faults.
- 119.0 - 128.0 Argillized metavolcanics of Excelsior formation; brecciated but not crushed; considerable clay and small amount gouge at 127-128'.
- 128.0 - 143.0 Gray to black metavolcanics, dipping 25° at 130'; several minute random veinlets pyrite; numerous calcite veinlets, some with quartz, at 139-143'.
- 143.0 - 209.0 Dark green to black metavolcanics, fine-grained to medium-grained, with conchoidal fracture at 176-184'; medium-grained section composed of chlorite, quartz, and feldspar; with several black shaly bands; small to moderate amounts graphite at 143', 147-168', 184-192', and 201'; traces pyrite with 1/4" veinlet dipping 60° at 193'; small amounts calcite in fractures; chalcopryite with pyrite in calcite veinlets at 205-209'; traces sphalerite at 143'.

Bottom: 209.0 feet.

EFL

RILL LOG

COMPANY NAME

Laister-Martin

MINE Wild Horse Canyon

COORDINATES OF COLLAR:

SHEET 1 OF 2

SCALE $1'' = 10'$

LOCATION TION 130E NE 1/4 Sec 32

Z

BY E. C. Holt

AU. 3

HOLE NO. Δ-1

E

DATE 3/17/66

BEARING

LENGTH OF HOLE 209

CASING

DIP 13.1

HOLE SIZE 11X

Bigles Brothers Drilling Co.

ACCOMPANIED BY NARRATIVE LOG YES ☐ NO ☒[illegible]

Basal...
100

100

130

Completely Crushed
solid like - Sil.
Highly actinolitic

130

Highly fractured - Sil.
Crushed - Actinolitic - Quartz
Quartz - Silica
on fractures
Crushed

150

LT. Gray Sil. Shale - chalc. - chalc. - chalc.
like white - chalc.
on fractures - occasional
Dark grey to black - abundant
Belly Fractured

140

Predominantly Dark grey
TL Black - Sil. Shale - chalc. - chalc.

very fine
yellowish
grey
seems to
have a lot of
silica in it
abundant

130

Thinly bedded

LT. grey to Black Sil. Shale
chalc. - chalc. - chalc. - chalc.

160

" "

" "

" "

" "

170

DRILL LOG

COMPANY NAME _____

MINE Wild Horse Canyon COORDINATES OF COLLAR: _____ SHEET 2 OF 2 SCALE 1" = 10'
LOCATION T114 R3 S0E, NE 1/4 Sec 32 N _____ BY R.E. Holt AU. 3
HOLE NO. R-1 E _____ DATE 3/17/66
BEARING _____ LENGTH OF HOLE 209' CASING _____
DIP vert HOLE SIZE NX Core

ACCOMPANIED BY NARRATIVE LOG YES ☐ NO ☒[illegible]

(0000 0081 (0760))

TABULATION OF GEOCHEMICAL RESULTS--DH R1, WILDHORSE PROSPECT

Sample No.	footage	interval	Cu	Mo	all values Pb	in ppm Zn	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