

P. O. Box 156,
Comox, B.C.

October 21st, 1964.

RECEIVED
DEC 28 1964

KERR ADDISON GOLD MINES LTD.

Per.....

Mount Nansen Mines Ltd.,
420 - 475, Howe Street,
Vancouver 1, B.C.

Gentlemen:

On behalf of your Company, Mr. L. G. White requested me to visit your operations at Brown-McDade and Mt. Nansen Mines, west of Carmacks, Y.T., to assemble information gained during the summer's operation. On arriving at the property, Mr. Gordon Dickson requested the following should be checked and presented in acceptable form:-

1. To check the detail mapping of the Webber No.1 and Webber No.2 veins.
2. Check location of vein sampling against assays.
3. Have all assays plotted.
4. Have all current drill holes and sections, with collar locations, plotted.
5. Map new trenches on Huestis zone and survey their locations.
6. Sample veins on Huestis zone.
7. Sample new vein showing on Brown-McDade.
8. Check new topographic map.

Subsequently, I was asked to prepare suitable portal sites for underground development of both the Webber and Huestis vein zones.

I wish to submit my report on the above instructions as follows:-

1. Mr. Tom Connally, geologist on the property, had field notes and work sheets of the Webber vein zone on a scale of 1" = 10'. With this available data, he was requested to plot all detail vein structure on a scale 1" = 20'. This detailed map was completed and delivered to Mr. L. G. White on his recent visit to the property (October 1 & 2).

On this composite map the following information was plotted:

- (a) Location of all vein samples with their respective reference numbers. Irrelevant wallrock samples were left off.
- (b) All available assay results. As further assay results are obtained, these may be filled in against their respective numbers to complete the map.
- (c) All current drill sections, and collar locations. In addition to the section locations plotted on the map, individual sections for each drill set up were made and submitted along with the map. Most sections consisted of two drill holes each. With this information (surface outcrop plus intersections of the vein in the drill holes) the anticipated vein location on the adit level was plotted on the map as a guide for later development.

Subsequent to the above, further detail on the Webber No.2 vein was plotted on 1" = 20' along with all current drilling up to October 9. This addition to the map showing vein detail, drill setups and sections was submitted to Mr. L. G. White on October 14 to be incorporated on the original map.

2. Sample cuts across the veins, and the adjoining wall rock, were well marked and pegged. The samples were taken every 10 ft. along the vein. This spacing varied slightly in places.

It was not possible to check the assays against the sample cuts, because complete assay results were not available. From a visual inspection of the veins as exposed in the trenching, the sulphide content indicates favorable results will be obtained. Further comment on the mineralization is given later.

3. All vein sample locations were plotted on the map and all available assays were plotted against their respective numbers on the map.

4. Current drill locations and sections were plotted and submitted as noted above.

5. The trenches, exposing the Huestis vein zone were surveyed by compass and chain traverse and located relative to an iron survey peg, as noted on the map of

the Huestis showings. This peg, in turn, was located by chainage and compass bearing southeast along the Dickson Picket line, some 3500 ft. and thence by compass and chain traverse to the N.W. corner of the Queen M.C. This "tie" was rechecked.

On the Huestis Zone map 1" = 100' only the centre lines of the trenches are indicated.

All trenches were examined in detail and vein exposures, along with fracturing or areas of indicated vein type mineralization were noted and plotted (see map Huestis Zone 1" = 100'). In most cases sloughing of the trench walls, and drag rubble along the trench bottom made observations difficult and obscured the detail. It is quite possible that some of the "indicated possible" vein zones are only alteration and oxidation along the bedding of members in the Yukon Series, which underly the area examined. Interpretation of the frequent altered and oxidized gouge zones is also uncertain.

With presently available information it is difficult to interpret or correlate, with any degree of assurance, the numerous mineral exposures in the trenches. In an effort to give a rough guide to tunnel development, planned for this winter, an effort has been made to make tentative correlation, as shown on the 2nd map of Huestis Zone 1" = 100' made for this purpose. This must be accepted as a guide only, and corrected as additional data is assembled.

6. Hand trenches were being dug across some of the indicated vein zones in the trenches in preparation for sampling. I was able to take samples in two trenches and the locations of these are shown on the above map. Adverse weather conditions will probably prevent proper preparation and sampling in the trenches this season.

7. Sampling of the Brown-McDade No.2 vein in the main trench exposure in the Senecita M.C. indicates a vein fracture of possible economic importance. Trenching

to the S.E. of the main trench was not sufficiently deep to properly expose the vein for sampling. Indications in these trenches suggest a south-easterly extension of 400 to 500 ft.

8. To check the new topographic map 1" = 500'.

The Brown-McDade claim map (General Map 1" = 500') was plotted from the original registered survey plots of these claims. This map was prepared for two purposes:-

- (a) To show the relation of the various vein zones under investigation.
- (b) To form a base to check the relative accuracy of the topographic map.

For this latter purpose several easily identified topographic features (prominent knobs) were surveyed to the nearest claim post. When this map is placed over the topographic map it is not possible to superimpose more than one of the topographic features at a time. This indicates sufficient horizontal distortion in the topographic map to make it impractical for detailed use. (There was no way of checking the vertical scale in detail). For general use the distortion is not detrimental.

CHOICE OF PORTAL SITES:

The portal site on the Webber Creek zone is located at the most northerly exposure of the vein zone and will allow drifting on the vein system from the start. This will give maximum information on vein character: I believe drifting on the vein zone from the start is preferable to crosscutting.

Previous work (1962) indicated side vein structures (to the east) which are not shown on the present map. These structures, both to the east, and some to the west, should not be overlooked. It is my opinion that crosscutting, from the

main drift, supported by close wall drilling, is the best way to evaluate these side structures.

The adit level, as prepared, will furnish backs up to approximately 250 ft.

All underground development, both on the Webber Creek and Huestis zones should be under close company supervision at all times, in order that it may be adjusted to obtain the most information possible. For this reason a straight footage contract should not be let.

The portal site on the Huestis will allow collaring the adit in competent quartzite. It was located as a crosscut entry to give between 50 & 60 ft. of backs on intersection with the main vein exposed in the trenches to the west. The direction of drive is suggested as 285° azimuth. The length will be approximately 200 ft.

In preparing the portal site a narrow vein was exposed with an indicated strike of 305° . I do not think it is advisable to drift on this vein, as its intersection with the main vein is too far to the N.W. Short crosscuts or wall drilling could be used for initial evaluation of this vein.

Aneroid readings were taken at the portal of the Brown-McDade adit (assumed elevation 4200 ft.), portal site Huestis zone; saddle at Huestis zone; and portal site Webber Creek zone. These readings were rechecked and the following respective elevations are tentatively established:

Portal Brown McDade	4200
Portal Site Huestis Zone	4450
Saddle Huestis Zone	4650
Portal site Webber Cr. Zone	4400

At the Brown-McDade camp, sufficient sections from two collapsed Porta-Seal huts were salvaged to reconstruct one. This affords a building 20x40 ft.

GENERAL:

The mineral occurrences in the area under investigation are considered to be related to the intrusive phases of the late Tertiary volcanic activity prevalent in the district. They have certain characteristics that suggest an epithermal type of mineralization, or one closely allied to it, having been formed under relatively near surface conditions. If this assumption is correct, the following features should be anticipated:-

Irregular fracture pattern within main zones of fracturing.

Parallel and en echelon lenses, as well as branching veins of varying dimensions. Individual lenses may be limited in extent but recurrence within the vein zones both horizontally and vertically.

Fractured wall rocks and extensive wall rock alteration; values restricted to vein fractures.

Fine grained mineralization in fine grained to cherty quartz. Possibly marked variation in mineral content and mineral association.

Wide variation of metal values in short distances but with possibilities of average values being relatively high within the mineralized lenses.

Values mainly gold and silver.

These factors indicate conditions unfavorable for evaluation by any form of drilling in the early stages of development. High values of gold and silver are likely to be of sufficiently frequent occurrence, to justify their inclusion in arriving at average values but conservative judgment must be exercised. Until underground development has shown the probable persistence of mineralized lenses and the frequency of recurrence within the vein zones, marked discretion must be used in any estimate of tonnages. In fact, in my opinion, such estimates based on present surface information can be very misleading, and do not serve any useful purpose.

This statement in no way contradicts nor modifies my recommendation for underground development; as I consider surface exposures fully justify underground development to determine the character, average value and tonnage possibilities of the deposits.

Until more complete information is obtained on this type of mineralization in this area, I suggest a conservative, but constructive, attitude should be maintained, both as to estimates of tonnage possibilities and expenditures to evaluate these.

Respectfully submitted,

W. W. Smith