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171 WEST ESPLANADE  
NORTH VANCOUVER, B.C.

August 31, 1969

President and Directors,  
Dome Babine Mines Ltd. (N.P.L.),  
Suite 201-535 Thurlow Street,  
Vancouver 5, B. C.

Attention - Mr. D. W. Small

Gentlemen:

PROGRESS REPORT - EXPLORATION  
DOME MTN. GOLD-SILVER PROSPECT  
OMINECA MINING DIVISION, B. C.

PRELIMINARY:

This report derives from the writer's August 6, 1969 general inspection of work accomplished at the property since his previous visit of July 23 - 25, 1967. Field guidance and assistance were provided by Messrs. M. J. Beley and R. Yorke-Hardy of Manex Mining Ltd. (N.P.L.). Supplementary and reference data pertaining to the 1967-69 exploration have also been made available to the writer via the Company's Smithers and Vancouver offices. The following records are incorporated:

Map, "Dome Mtn. Prospecting & Geology",  
1" = 100', by R. Yorke-Hardy

Drill-hole logs for diamond drill holes 1-6, inclusive

Sample records re d.d. holes 2, 3, and 4.

T.S.L. Certificates of Analysis re above drill cores

The writer's field examination comprised: an inspection of the 1967 'South' trench, mapping of the 'A', 'B', and 'North' trenches, sampling of one section of the 'North' trench, a brief inspection of accessible parts of the underground workings via #3 vein south shaft, and a rapid inspection of all drill cores.

As they are not essential for the purposes of this report the usual supplementary drawings have been omitted.

EXPLORATION SUMMARY:A - GRID PREPARATION:

A base-line on a N.W. bearing was established to pass through the collar of the access raise to the underground workings. Thirteen cross-lines, extending some 600' - 700' east and west of the base-line, were established at 150-foot intervals from 0+00N to 18+00N; lines 0+00N and 13+50N were extended some 400 feet additionally to the east and west, respectively. Cross-lines were stationed at 50-foot horizontal intervals.

B - MAGNETIC SURVEY:

A McPhar M-700 flux-gate magnetometer was employed for this work. Readings were taken at 50' - 100' intervals on all grid-lines and, presumably, adjusted to a base-reference station, or stations.

Magnetic contrast was reasonably good; the pattern of magnetic lows, taken in conjunction with observed outcrops, effectively delineated the outline and extent of that portion of the granitic intrusive underlying the grid area and, to some extent, the trend of bleached, silicified fracture zones within the andesitic country rocks.

C - GEOCHEMICAL SOIL SURVEY:

Soil samples were taken over all grid lines. These were derived from the B-soil horizon where it all developed; however, field staff advise that soil development was weak and/or erratic - thus partly obviating good lateral standardization of samples. Some anomalous trends, corresponding with known Fe-Zn-Pb sulphide veins were delineated but, on the whole, the survey did not produce very much confirmatory, or new information.

D - V.L.F. - E.M. 16 SURVEY:

The instrument used was rented from the Geological Department of B.C.I.T., Vancouver.

The survey was run over the complete grid on a 50-foot reconnaissance spacing; profiles requiring fuller delineation were surveyed on 25 foot line-stations. The grid-line profiles were plotted on a set of sections. To compensate for possible topographic effects the first derivatives (rates

of change of dip-angles) were computed and tabulated on a 100-scale grid-plan. These are visually distinguished by a colour code which provides an arbitrary classification of the conductors as 'apparent', 'probable', 'possible' and as 'apparent non-conductors'. The 'apparent conductors' have been correlated on plan-providing a pattern of discernibly-anomalous areas.

The plotted first-derivatives indicate the existence of only one undoubtedly-anomalous zone, which extends north-westward through the access raise to 9+00N and thence, sinuously, W.N.W. through the grid to 15+00N, 40-140E. At the latter point it joins a broad, less definite anomaly extending W.N.W. through the easterly half of the grid. Except for the above-noted anomaly, the survey results do not necessarily appear to be related to mineral conductors. It is possible that the high frequencies employed have resulted mainly in the delineation of areas of conductive overburden.

E - TRENCHING:

The 'South' trench did not expose any significant fracturing or mineralization. Trench 'A' exposes only a few fractures with very minor quartz and sulphides; it does, however, expose a granitic band which trends through the access shaft, on vein-strike, across trench 'B'. Trench 'B' exposes two parallel thin quartz-pyrite veins, representing the N.W. extension of No. 3 vein system beyond the access raise collar. The trench cuts the above-noted narrow E.M. anomaly related to No. 3 vein.

The 'North' trench is an old hand-excavation on the apparent N.W. extension of No. 3 vein, or other closely parallel structure. It exposes a sinuously N.W.-striking quartz vein over a distance of 180 feet beyond 10+50N, 60W - presumably all within the general mass of the granite body. Vein material comprises variably-fractured quartz containing minor fracture-filling pyrite, sphalerite, and galena. In width the vein pinches and swells from 2 inches up to 3 feet. It appears to be a well-defined, structure which may be expected to have fairly persistent strike and dip extensions. One sample by the writer, cut across 1 1/2 feet of quartz with scant sulphides, assayed: gold, 0.40 oz/ton; silver, 0.25 oz/ton. Consequently, some further exploration on this and possible parallel structures in the locality should definitely be carried out - the objective being the discovery of similar high grade, but wider gold-quartz vein deposits than those thus far outlined. With this a further effort should be made to search out other possible veins, or vein systems in the main body of the intrusive before concluding the Dome Mtn. program - the writer's justification of this recommendation being that vein occurrences within the more homogeneous competent intrusive rocks may be stronger and more persistent than those within a heterogeneous volcanic-sedimentary assemblage.

F - DIAMOND DRILLING:

Six surface holes, totalling 2,045 lineal feet, were drilled between June 25 - July 24, 1969; the following tabulations summarize the essential data:

D.D.H. No. 1:

Collar @ 65' bearing 240° from edit portal; bearing, 220°; inclination, 45°; depth, 315'. Core comprises bleached, locally silicified tuffs except quartz porphyry dyke @ 132.7 - 135.0'. This hole evidently passed under the zone of flatly, and sinuously-dipping quartz veins intersected by the edit cross-cut; several narrow, relatively barren veins intersected.

D.D.H. No. 2:

Collar location given as "brg. 40° from D.D.H. #1." (dist ?); bearing 40°; inclination, 45°; depth, 275'. Core mainly unaltered to variably bleached tuffs; quartz porph. dyke @ 30.5 - 39.5'. A 1.4' intersection @ 119.7' - 121.1' assayed Au, 1.75 oz/ton; Ag, 0.50 oz/ton; and 0.5' from 269.0 - 269.5' @ Au, 0.75; Ag, 0.30 oz/ton. Roughly eight narrow quartz (pyrite) veins and several sparsely mineralized zones of siliceous-carbonatized, etc. tuff were intersected.

D.D.H. No. 3:

Collared @ 38' N57°E of 10+50N on base-line; bearing, S 05° W; inclin., 45°; depth, 500'. Core mainly intermittently altered (kaolin, sericite, etc.) granite intrusive from collar - 201', 209' - 215.5', 219' - 227.3', 229.5' - 230.8', 248.4' - 285', 288' - 322', 324' - 423.2'; remainder comprised generally altered tuffs; numerous narrow quartz veins and seams intersected. The section 379' - 384.6', comprising quartz veins with minor pyrite-galena, assayed Au, 0.04 oz/ton; Ag, nil; the section 495.7' - 498.4', including a pyritic quartz veinlet in tuff assayed Au, 0.05 oz/ton; Ag, nil.

D.D.H. No. 4:

Collared @ 52.5' N 48°E of 12+00N on base-line; bearing, S 16° W; inclin., 45°; length 500'. Core mainly fresh and variably altered (kaolin-sericite-chlorite, etc.) granite. Frequent narrow quartz veins and seams, occasionally mineralized with pyrite, galena, etc., were intersected. Most samples returned trace Au-Ag values. The writer was advised that a well mineralized quartz vein (159'-164') in the main body of the granite ran Au, 1.13 oz/ton; Ag, exceeding 1.0 oz/ton.

D.D.H. No. 5:

Collared @ 22.3' S 45° E of 7+50N, 1+00E; bearing, 544°W; inclin., 45°; depth, 225'. Core mainly fractured, variably altered

tuff with minor sections of altered 'granite'; numerous minor quartz veins, seams, and fractures with sparse sulphide mineralization. No assays are recorded.

The hole intersected the apparent V.L.F.-E.M. 16 anomaly coinciding with the N.W. course of No. 3 vein; the section 137.5-138.0' is verbally reported to have assayed approximately 2 oz/ton gold.

D.D.H. No. 6:

The survey data pertaining to this hole are missing; however, it appears that the hole was drilled on the No. 5 fracture zone lying outward of the adit portal. Core comprises variably altered tuff with one granitic section at 149.5' - 375.2'. Field advice is to the effect that the section 51.3' - 52.0' returned some 3 oz/ton gold with some silver; the section appears to lie below the strong (shear fault cutting the outer part of the adit on a 30° S.W. dip.

SUMMARY & RECOMMENDATIONS:


The September, 1967 recommendation for an evaluation of the vein system within the main area of old workings has been adequately accomplished. From the recent trench and drill results the writer is inclined to believe that all vein structures, and the related gold-silver mineralization, are weakening along trend away from the main body of the granite stock and/or related prongs. The writer, therefore, feels that some further exploration of the vein system within the main body of the stock is essential and warranted - this opinion being based on the encouraging results accruing from one randomly selected chip sample and one drill hole intersection - some 120 feet down-dip of the trench sample. The writer speculates that the single structure (No. 3 vein) strengthens appreciably in passing northwestward from apparently less-competent volcanic wall rocks into the homogeneous, more competent mass of the granitic intrusive; he infers that other veins will behave similarly - particularly nos. 1, 2 and 5 of the system. This second-stage exploration should include:

1. Extension of the magnetometer survey to more fully outline the stock.
2. Extend and fill in geochemical soil-sampling along probable N.W. extensions of the principal veins.
3. Explore the North (No. 3) and possible No. 2 vein extensions via a series of short X-ray holes - suggesting that the initial series be collared some 50 feet N.E. of the outcrop and extensions, spaced at 75-foot strike intervals, and drilled to the S.W. @ -45°.

ESTIMATED DIRECT COSTS:

1.(a)	Provide 5 miles of flagged grid-line	\$500	
(b)	Magnetometer survey	<u>500</u>	\$ 1,000
2.	Geochemical survey; collection	\$500	
	analyses	<u>750</u>	1,250
3.(a)	Preliminary drilling 10 holes;		
	750 feet @ \$8.00		6,000
(b)	Provision for follow-up, 150' holes;		
	1,500 feet @ \$10.00		15,000
4.	Supplementary expense & contingency		2,500
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	Total, direct		<u>\$25,750</u>

Respectfully submitted,


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W. M. Sharp, P. Eng.