File: Smithers-Telkwa

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801441

171 WEST ESPLANADE
NORTH VANCOUVER, B.C.

August 29th, 1969

President and Directors
Manex Holdings Ltd. (N.P.L.)
c/o Mr. D.W. Small
Ste. 201, 535 Thurlow Street
Vancouver 5, B.C.

Gentlemen:

REPORT - GEOLOGICAL EXAMINATION
L.W. PROPERTY, DRIFTWOOD CREEK,
OMINECA MINING DIVISION, B.C.

INTRODUCTION

At Mr. D.W. Small's request and authorization the writer accomplished the field portion of the examination on August 10th, 1969. This comprised detailed geological mapping of all reasonably accessible exposures on L.W. vein system, and subsequent sampling of the more significant of these. Mr. M.J. Beley of Manex Mining Ltd. (N.P.L.) and Mr. L. Warren, co-vendor of the property, provided local transportation, guidance, close field assistance, and supplementary historical information — all of which are appreciatively acknowledged.

SUMMARY and RECOMMENDATIONS

The L.W. claim group, at some 12 miles northeast of Smithers, B.C. overlies a W.N.W.-trending zone of mineralized fractures within tuffs and agglomerates of the regional Hazelton group. Typical showings which received the most attention during the earlier years of exploration and development comprise small, but frequently high-grade local occurrences of gold and silver bearing chalcopyrite, bornite, and tetrahedrite in single to multiple fracture, shear, and breccia zones; individually, these host structures rarely exceed 5 feet in width. The several mineral showings, opened by frequent surface trenches and short tunnels, occur on at least four separate, sub-parallel structures. The bulk of the current exposures appear too narrow and insufficiently mineralized to constitute mineable ore at the current level of metal prices and mining costs — the latter being the more restrictive factor. However, two distinctly different occurrences of sparsely-dispersed gold-silver-copper mineralization in relatively wide zones of fractured, altered volcanics indicate that the property has at least a minor potential for the occurrence of currently-mineable, broader zones of low-grade mineralization.

In the writer's opinion the property warrants a very modest program of additional exploratory work — mainly restricted to further surface exploration of the broader, low-grade mineralized zones traversing the 11A-11C and 19-19A areas of the writer's traverse.

ESTIMATED COSTS

1.	Detailed soil-sampling; estimate 200 samples	$ 500
2.	Bulldozer stripping, allow 2 days, gross	600
3.	Blast-trenching, clean-up, and sampling	750
4.	Miscellaneous expense	150
	TOTAL	$ 2,000

LOCATION and ACCESS

The L.W. claim group lies within the Omineca Mining Division at 12 air miles northeast of Smithers, B.C., adjacent to upper Driftwood Creek.

Access is via the Driftwood Creek road, departing eastward from Highway 16 at 3 miles south of Smithers, B.C. A 4 W.D. vehicle is required to negotiate the final ¼ mile of branch road to the lowest open cut and adit.

CLAIMS and OWNERSHIP

The L.W. property comprises, according to a sketch and supplementary verbal information given to the writer, the following 11 claims: L.W.'s 1-3 and 5-10, inclusive, the 'Driftwood Creek' Crown-grant, and the 'Annie D.' Crown-grant — all adjoining. Full details of the constituent claims will be found in the corresponding Form A's delivered to the Company's Vancouver office.

Ownership of the group is divided between Messrs. Lorne Warren and Art Cope of Smithers.

HISTORY

Initial exploration of the L.W. multiple vein system was reportedly accomplished during the late 1920's and early 1930's; this comprised open cut and adit exploration, most of which workings are included in the accompanying map. This work was accomplished on at least three separate structures comprising a part of the multiple vein system. The more important open cuts have been rehabilitated by L. Warren and others since 1965. A portal-cave blocks access to the Lower adit; sluffed vein material and wall

rock has almost completely blocked access to the top working of the upper, closely spaced pair of adit-drifts. However, judging by the volume of the dump, the lower adit, which appears to be the longest, is probably less than 100 feet in length.

During 1965 L. Warren accomplished some 2000 feet of side-hill 'dozer trenching; in 1966 Reindeer Explorations did a further 3000-4000 feet of transverse trenching, employing a D-9 ripper-'dozer.

Apparently no ore shipments resulted from the earlier exploration-development work. In November, 1968 a Mr. J.T. Millhouse, leaser, shipped some 14 dry tons of sorted ore from the upper adit to Anaconda's Montana, U.S.A. smelter. The metal content of this, via the settlement sheet, was gold, 0.106 oz./ton; silver 50.08 oz./ton; copper, 9.55%. Lead and zinc, if present, were not paid for by the copper smelter.

The writer does not have data on other examinations — other than that conducted by A.G. Hodgson, P.Eng., on October 4th, 1966.

GEOLOGICAL SETTING

The claims group straddles a west-northwesterly, to westerly-trending contact between Hazelton Group sandy and silty sediments and andesitic volcanics. Map 69-1 indicates that the sediments and volcanics, respectively, are involved in paired overturned - upright synclines. This map also indicates that the sedimentary section makes structurally-conformable W.N.W.-W contact with a generally granodioritic body on the north.

All of the L.W. showings mapped by the writer occur within green, and mixed green and purple andesitic tuffs and breccias. Within some highly fractured sections these have been subjected to either siliceous, or talc-carbonate-chlorite alteration.

DETAILED GEOLOGY

The L.W. showings comprise single to multiple fracture, shear-fracture, and shear-breccia zones containing both veining and replacement chalcopyrite, bornite and tetrahedrite (with minor galena-sphalerite) in a general quartz-siderite (ankeritic?) gangue. More sparsely-mineralized fractures and fracture zones tend towards more quartzose fillings with a generally more pervasive silcification of the wall rocks; pyrite is the more abundant sulphide in these occurrences.

Mapping indicates that the various L.W. showings are distributed over four, or more distinct fractures or fracture zones, and that significant mineral showings on any of these appear to be of rather local strike-and-dip extent. The showings occur within a general WNW-trending

fracture panel delimited over a width of at least 250 feet; the currently-delineated length of this panel is about 1200 feet. Mineral showings occur over an observed vertical range of about 600 feet.

Vein-dips are, predominantly, steeply southward; a few outlying, subordinate veins of the system dip northward. Significantly, local but rather massive chalcopyrite lenses within the Upper adit interval of the (principal?) structure occur within 'folded' dip-intervals — which suggests a possible control by primary wall rock types and/or structures.

The majority of individual showings comprise relatively narrow (1 - 5') sulphide stringers or multiple veins of insufficient gross metal content or value to comprise mineable ore at the current level of metal prices and mining costs — particularly the latter. However, some potential for the occurrence of mineable lower-grade, but significantly wider sections of mineralization exists within upper easterly and more southerly parts of the zone — which together may be structurally continuous. Each of these, respectively located within the station 19-19A and 11A-11C areas of the survey, contains generally dispersed types of mineralization over apparent widths in the range of 15-20 feet. Consequently, the writer believes that any future work should be essentially directed to exploration of these occurrences and their possible extensions.

SAMPLING DATA

The following is a summary of the writer's sampling, and sampling by others which the writer considers essentially relevant to the possible economic potential of the property. The writer's samples are additionally listed on the accompanying Dwg. No. 1

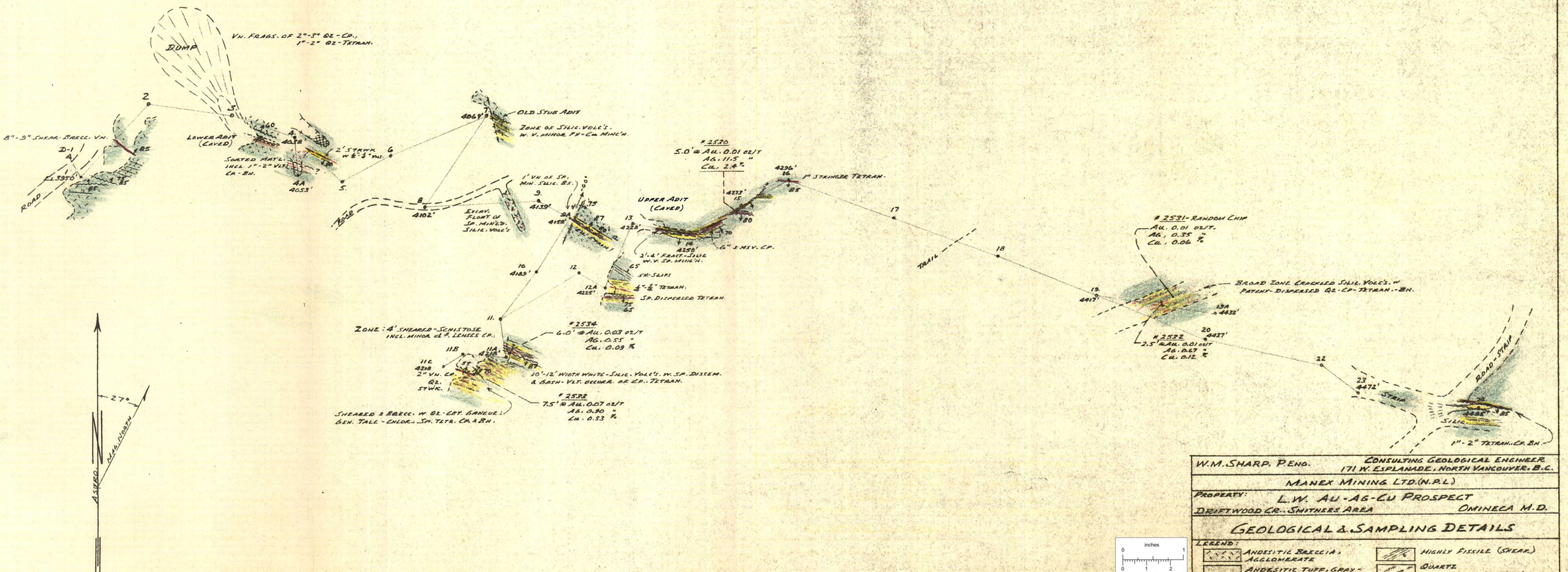
Sample No.	Location	Description	Ft. Width	Avg. oz/ton Au	Avg. oz/ton Ag	Avg. % ~~oz/ton~~ Cu
2530	Sta.15 @ collar of Upper adit	3 cp-tetrah veins in min. silic volcanics	5.0	0.015	11.36	2.41
2531	Sta.19-19A, wide silic zone	Dispersed veining cp-bn.-tetrah, w.py.	20.	0.01	0.355	0.08
2532	Sta.19+54', in above zone	Better mineralized local section	2.5	0.015	0.70	0.125
2533	Sta.11B, excav. face	Dispersed cp-bn.-tetrah in fract., silic volc's	7.5	0.04	0.93	0.51
2534	Sta.11A, excav. face	Minor pods & dissems. cp-bn.-tetrah in sheared volcs.	6.0	0.02	0.60	0.095
6004 LW	East of LW 7	Rep. chip of large piece of vein float	—	trace	trace	3.7
M.J.B.$	Upper adit	Grab of sorted high-grade sulphides	—	0.67	115.4	13.88
4308 AH	Approx. Sta.11B	Replace cp-bn., tetrah in fract. silic (porph?) volcs.	7.5	0.09	1.47	0.74
4309 AH	Approx. Sta.11C	Sp. dissem. cp-bn.-tetrah in fract. silic volcs.	6.0	trace	0.36	0.10
4317 AH	Talus slide consid. N. of Upper adit	Dissem. cp & tetrah in silic rhyolite float-grab	—	0.01	1.15	0.27

Respectfully submitted

W.M. Sharp

W.M. Sharp, P.Eng.

WMS/hb



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MANEX MINING LTD. (N.P.L.)	
PROPERTY:	L.W. AU-AG-CU PROSPECT
DRIFTWOOD CR., SMITHERS AREA	OMINECA M.D.
GEOLOGICAL & SAMPLING DETAILS	

LEGEND:

- ANDESITIC BRECCIA; AGGLOMERATE
- ANDESITIC TUFF, GRAYWACKE - LOC. SANDY-ARGILL.
- FAULT. SLIPS, FRACTURES.
- HIGHLY FISSILE (SHEAR.)
- QUARTZ
- SILICIFICATION
- VEIN, LENS, MINERALIZATION. DISPERSED; DISSEM. MIN'N

SCALE: 1 IN. = 50 FT.	EXAM. BY: W.M.S. ASS'T BY M.B., L.M.	DWN BY: W.M.Sharp	DWG. NO. 1
		DATE: AUGUST 1969	