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September 3, 1975

New Wellington Resources Limited
614 - 4th Pike Building
SEATTLE, WASHINGTON 98101
U.S.A.

Attention: Mr. Jack Evans

REPORT: PRELIMINARY APPRAISAL
NEW WELLINGTON RESOURCES LTD.
SILVER-LEAD-ZINC PROPERTY, SLOCAN MIN. DIV., B.C.

PRELIMINARY

The writer, initially accompanied by Mr. Evans, made a general examination of the property during the period August 16 - 18, 1975. During this visit the writer inspected details of the local geology and mineralization within the currently open or accessible surface and underground workings, and measured and sampled the principal Wellington and Sunset mine dumps. During this, Mr. Peter Leontowicz supplied much helpful field guidance, assistance, and general background information.

The general terms of reference pertaining to this preliminary appraisal were contained in a letter from Mr. J.J. Crowhurst of Bacon & Crowhurst Ltd. Background data was contained in various maps, air photos, reports and summaries were kindly provided by Mr. Evans. These, along with the main reference reports....B.C. Dept. of Mines Bull. No. 22 by M.S. Hedley and Geological Survey of Canada Mem. 184 by C.E. Cairnes provided most of the general information required by the writer for his examination and subsequent compilations.

GENERAL GEOLOGY

The property is underlain by rocks of the Triassic Slocan Series. Locally, these occur within the general 'footwall slate member' which, where associated with strong interbeds of limestone and associated quartzite, hosted the important Ag-Pb-Zn orebodies comprising the Whitewater and Lucky Jim mines. Within the Whitewater and New Wellington properties, the predominant bedding trends are westerly to west-northwesterly. Dips, as a result of the moderate to intense flexuring and drag-folding present, are flattish to steep southerly and, locally, overturned to produce a fold-related complex of flattish to steep northerly and southerly dips. Where such sections embody thick beds of limestone, quartzite and slate intrusions of lamprophyre, important orebodies have existed or may be expected to occur.

The New Wellington property, adjoining the Whitewater claim group on the west, contains the extension of the principal, or Whitewater lode and also, at least four subordinate, but generally similar structures which have produced, or have the potential to produce fair to high grade Ag-Pb-Zn ore. The veins or lodes in Wellington ground, and none of which have been comprehensively explored or developed within the property comprise, from north to south, the Keystone, Wellington, Whitewater, Homestake ('Road') and Hazel.

Like the Whitewater lode, the New Wellington vein/lode system strikes westerly to west-northwesterly and approximately parallel to general bedding trends; however, individual veins and lodes show variations of dip that locally parallel the bedding planes, or cut across them at slight to large angles.....the latter situation often relating to the development of relatively 'open' breccia zones which comprise optimum conditions for large-scale mineralization. Within the general Whitewater-Wellington structural geological setting ore bodies having strike-lengths ranging from 100 to over 600 feet occurred and widths ranging from 1 foot fracture-fillings to 40 foot replacements. From his study of the maps and air-photos, the writer has received the impression that the more significant 'spreads' of mineralization within the vein/lode system relate to westerly, rather than west-northwesterly strikes, and to steep (NorS), rather than to low dip-angles.

HISTORY

The Wellington claim was located in 1892 and 50 tons of high-grade silver-lead ore was mined and shipped from the property in 1894. In 1896, 400 tons of Wellington ore, averaging 173 oz/ton silver and 30 percent lead, was mined and shipped and two adit-crosscuts were driven. In 1928 the east Matheson adit-crosscut was started for the purpose of exploring the west extension of the productive Whitewater lode, and cross-cutting was continued on the Hazel adit. Concurrent work on the Ivanhoe adit, being driven to explore the westerly continuation of the Wellington vein-system was stopped in 1930.....probably because of falling metal prices. Recorded production, 1892 - 1915 period, is as follows:

Wellington - 787 tons containing 117,452 oz. Ag, 457,622 lbs. Pb,
and 100,402 lbs. Zn.

Sunset Claim - 52 tons containing 8,318 oz. Ag and 27,607 lbs Pb
and apparently other shipments of unreported size and
grade.

The above was produced by hand-sorting to eliminate as much waste and zinc content as possible. Consequently, by reason of the generally mixed (galena and sphalerite) character of the ore, much such well mineralized material was discarded.....to be left within the existing dumps and, possibly as pillars and stope fill within the old mine workings.....as was usual prior to the advent of the selective-flotation process.

SUGGESTED EXPLORATION PROGRAMPreliminary Comments

The writer would defer serious consideration of (costly) underground exploratory work until the completion of an adequate program of (low-cost) surface exploration has been accomplished. The writer's opinion is that too much effort and money have been expended in driving long crosscuts (and associated relatively short drifts) prior to evaluating the relative 'exploration probabilities' via a commensurate, adequately detailed preliminary surface-based exploration-evaluation program. Accordingly, the writer suggests that the following surface work be carried out - not necessarily in the order given, but with the actual sequence being based on economic considerations, and on the relative seasonal-accessibility of the separate veins or lodes.

- I Continue investigations relating to a determination of the economic-feasibility of mining the principal dumps and, if the results of this are favourable, carry out the indicated type of mining operation. The returns from this exploration would probably be in excess of what is required for the following exploration:

II-a. Wellington-Sunset Lode

Carry out surface exploration via integrated geological mapping, localized soil sampling, trenching, and direct sampling of exposed vein/lode material. (Note: F.J. Hemsworth/1962 report states that the vein has been traced by open cuts and surface pits for over 1,500 feet.....also that incomplete production records for the consolidated New Wellington property show 1,961 tons mined from which was recovered 123,240 oz. Ag, 510,324 lbs. Pb, and 192,434 lbs. Zn.

b. Whitewater (Matheson) Lode Extension

Explore, by methods suggested in (a), its extensions to the east and west of the Matheson underground workings. Also note that if the magnetic type of ore that was found in the Whitewater mine is present, it may be detectable by magnetometer - excluding interference by track, pipe and other steel fixtures and equipment.

Note also previous mention (A.W. Davis, 1946) of an occurrence of good ore in an open cut located some 300 - 400 ft. east of the Matheson (E.) adit, and of a 2' sample taken near the face of the east drift, which contained 10 oz./ton Ag, 12% Pb, and 8.8% Zn.

c. Homestake ('Road') Vein

Explore, by methods suggested in (a), its surface extensions to, and west of Murray Creek. Note that a distinct lineament which approximately coincides with its projected extension west of the Haxel cross cut is revealed by stereo-examination of the air photos

provided. Similarly, the air photos also indicate that its westerly extension is offset slightly to the north by an apparent fault which coincides with Murray Creek.

According to F.J. Hemsworth (1962), the 'Road' vein occurs at the contact of limestone and slate, and is 12' wide - including 8' containing siderite and limonite (ox sulphides?) and 4' assaying 12 oz./ton Ag, 14.6% Pb, and 4% (op?) Zn. Apparently, further stripping along the strike of the showing was curtailed because such work would disrupt road access to the Matheson adit!

d. Hazel Vein

Explore its surface extensions by methods suggested in (a) - noting that its projected extension west of the Hazel crosscut nearly coincides with the course of an old road on trail crossing Murray Creek.

PRELIMINARY FEASIBILITY ESTIMATES - MINING DUMPS

a. Quantities:

New Wellington No. 0 (top) dump	1,500 tons
" " No. 1 (road) "	2,000 "
" " No. 2 (main) "	5,650 "
Sunset No. 1 (top) "	250 "
" No. 2 (main) "	1,750 "
TOTAL	11,150 tons

Prelim. tonnage - grade estimate of probable valuable portion - pending confirmation via P. Leontowicz sample results:

VIA MESSAGE REC'D. SEPT. 7th.
 AVG OF 6 SAMPLES (3 ON N.WELL. #2, 3 ON SUNSET #2 DUMPS):
 Ag. 3.4 oz./ton
 Pb. 1.2%
 Zn. 1.6%
 NOTE: THAT ONE OF THESE DUMPS WILL HAVE A HIGHER AVERAGE GRADE THAN OTHER, AND WILL QUITE PROBABLY BE THE SUNSET #2. ALSO PARTS OF N.W. #2 WILL BE OF ONE GRADE.

10,000 tons @ 4.55 oz./ton Ag., 1.08% Pb, 0.72% Zn

I Flotation-Concentration Alternative

ESTIM. H.S. VALUE IS:
 Ag = 3.4 x 66% x 4.25 = 9.54
 Pb = 1.2% x 70% x 0.09 = 1.51
 Zn = 1.6% x 60% x 0.13 = 2.50
 Cd = 0.16 / 0.72 x 0.16 x 1.27 = 0.36 @ 13.91/ton. cf. *

Estim. recoveries: Ag, 4.55 oz./ton x 66% = 3.0 oz./ton milled
 Pb, 1.08% = 21.6# x 70% = 15 lbs./" "
 Zn, 0.72% = 14.4# x 60% = 8.6 lbs./" "
 Cd, 0.16 lbs./" "

Estim. net smelter values, F.O.B. local mills:

July - 4.90/oz
 SEPT. 8. Ag @ 4.64/oz
 " 12 " @ 4.53/oz
 July - 17.43#/lb
 (Sept 12 - 16.45#)
 July - 344/ll
 (Sept 12 = 33.42#)

Ag @ \$4.25/oz. (1)
 Pb @ 0.09/lb. (2) After deducting smelter discounts & charges
 Zn @ 0.13/lb. (3) concentrate transport costs, handling charges,
 Cd @ 1.27/lb. (4) and B.C. royalty charges.

Aug/76 Est. J
 (2.4) -> (1) @ 2.40
 (25#) -> (2) @ 13¢
 464 -> (3) @ 18¢
 300 -> (4) @ 1.50

Resulting net smelter value of recov. metals - \$15.43/ton - cf. *

Estimated Production Costs	(A) Re Ainsworth Mill	(B) Re Sandon Mill
Access prep. & loading muck	\$1.00 per ton	\$ 1.00 per ton
Hauling to mill	4.00 " "	2.40 " "
Milling @ probable toll charge	10.00 " "	10.00 " "
	\$15.00 per ton	\$13.40 per ton

Possible Gross Profit per (B) = 10,000 x 2.03 = \$20,300.00

II Jig - Concentration Alternative

Crush and jig 10,000 tons for 5,000 tons @

Ag, 5 oz./ton @ \$4.25 =	\$ 106,250.00	
Pb, 25 lbs @ 0.09 =	21,250.00	
Zn, 15 lbs @ 0.13 =	9,750.00	
Cd, 0.25 lbs. @ 1.27 =	1,587.00	\$128,837.00

Estimated Production Costs	Re Ainsworth Mill	Re Sandon Mill
Rent & install plant, 10,000 tons @ 0.10	\$ 1,000.00	\$ 1,000.00
Load, feed, & operate, " " @ 1.50	15,000.00	15,000.00
Sub-total	\$ 16,000.00	\$ 16,000.00
Load product, 5,000 tons @ 1.00	5,000.00	5,000.00
Truck product to mill " " @ 4.00	20,000.00 @ 2.50 =	12,500.00
Milling product " " @ 10.00	50,000.00	50,000.00
Estim. total production costs	\$ 91,000.00	\$ 83,500.00
Estim. gross profit	38,000.00	45,000.00
" " " /10,000 tons	\$3.80/ton	\$4.50/ton

Summary

Revenue resulting from implementing the above 'Jig-Concentration Alternative' should be sufficient to carry out the suggested exploratory work to a point where a sound decision regarding further underground exploration and development may be made. Hence, the writer recommends that the dump-mining feasibility investigation be continued.

Respectfully submitted,

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SEPTEMBER 12, 1975

NEW WELLINGTON RESOURCES LTD.
614-4th & DIKE BUILDING.
SEATTLE, WASHINGTON 98101
ATTENTION: MR. JACK EVANS

SUPPLEMENTARY TO REPORT: "PRELIMINARY APPRAISAL" 9/3/75

THE FOLLOWING ESTIMATES INCLUDE THE EXTRA RESULTS OF PETER LECHTOWITZ'S SAMPLING, SHOWN ON THE ENCL. ASSAY REPORT:

BASIS: SELECTIVE MINING, TO TAKE 70% OF THE MATERIAL OF EACH DUMP WOULD PROBABLY UP-GRADE THEIR RESPECTIVE GRADES BY A FACTOR OF 1.43 (from $\frac{10}{7}$) OR:

$$11,150 - 250 = 10,900 \times 70\% = 7630 \text{ TONS @ } \begin{matrix} \text{AG} = 3.2 \times 1.43 = 4.602/\text{TON} \\ \text{PB} = 0.87\% \times " = 1.2\% \\ \text{ZN} = 1.42\% \times " = 2.0\% \\ \text{CD} = 0.028\% \times " = 0.04\% \end{matrix}$$

WITH JIG-CONCENTRATION,

ESTIMATE RATIO OF CONC. = 2.0 & METAL RECOVERY = 65%/60%

∴ 7630 TONS WOULD PRODUCE:

$$\begin{matrix} 3815 \text{ TONS @ } \text{AG} = 2 \times 4.6 \times 65\% & = 6.002/\text{TON} \\ \text{PB} = 2 \times 1.2 \times " & = 1.56\% \\ \text{ZN} = 2 \times 2.0 \times 60\% & = 2.4\% \\ \text{CD} = 2 \times 0.04 \times " & = 0.048\% \end{matrix}$$

CURRENT NET-SMELTER VALUE OF JIG PRODUCT, F.O.B. MILL:

$$\begin{matrix} \text{AG} = 6.0 \times 4.00 & = \$ 24.00/\text{TON} \\ \text{PB} = 1.56\% = 31.2\% \times 0.08 & = 2.50\% \\ \text{ZN} = 2.4\% = 48\% \times 0.125 & = 6.00\% \\ \text{CD} = 0.048\% = 0.96\% \times 1.27 & = 1.22\% \end{matrix} \quad \underline{\$ 33.72/\text{TON}}$$

GROSS VALUE, F.O.B. MILL = 3815 TONS × \$33.72 = \$128,642

ESTIMATED PRODUCTION COSTS	RE. AINSWORTH MILL	RE. SANDEN MILL
RENT & INSTALL PLANT	\$ 1,000	\$ 1,000
LOAD, FEED, & OP. " = 7630 × 1.50	11,445	11,445
SUB-TOTAL	\$ 12,445	\$ 12,445
LOAD JIG PRODUCT, 3815 @ 1.00	3,815	3,815
TRUCK PRODUCT TO MILL 3815 @ 4.00	15,260	@ 2.50 - 9,538
MILL JIG PRODUCT 3815 @ 10.00	38,150	@ 10.00 38,150
ESTIM. TOTAL PRODUCT COSTS	\$ 69,670	\$ 63,948
" GROSS PROFIT	\$ 58,972	\$ 64,694
ESTIM. UNIT GROSS OP PROFIT	\$ 7.72 / TON	\$ 8.51 / TON

PER PAGE 5 OF REPORT:

INDIC. RANGE GROSS OP PROFITS = \$3.80-7.72/TON & \$4.50-8.51/TON

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