

BACON \& CROWHURST LTD.
1720-1055 West Hastings Street
Vancouver 1, B. C.

REPORT
on the

DLAMOND DRILLIMG EROGRAM
MORICE LAKE RROEERTY
OMINECA MINLNG DIVISION, B.C.
for
AGGRESSIVE MLNLNG LIMLTED
by
D. H. BURNS, B.Sce P.Eng。

Vancouver, B.C.
August 11 th , 1972.

## TABLE OF COMTEMTS

Pase
IMTRODUCTION ..... 1.
LOCATION ..... 2
ACCESS ..... 2
WEATHER ..... 3
SHOWINGS ..... 3
DIAMOND DRILLING ..... 4
SAMPLING ..... 5
ASSAYS ..... 6
SUMMARY ..... 7
CONCLUSLONS ..... 8
CERTIFICATE ..... 24
Page
Drill Hole Plan ..... 9
Log of Drill - Hole No. 1 ..... 10
Log of Drill - Hole No. 2 ..... 11
Assays Drfll - Mole No。2 ..... 12
Section Drill Holes Nos. 1 \& 2 ..... 13
Log of Dril1 - Hole No. 3 ..... 14
Assays Drill - Hole No. 3 ..... 15
Section Drill Hole No. 3 ..... 16
Log of Drill - Hole No. 4 ..... 17
Assays Drill - Hole No. 4 ..... 18
Log of Drill - Hole Mo. 5 ..... 19
Assays Drill - Hole No. 5 ..... 20
Saction Dxill hole Nos. 4 \& 5 ..... 21.
Photographe ..... 22
Photographs ..... 23

## INTRODUCTION

Bacon \& Crowhurst Ltd. were retained by Aggressive Minfing Limited to supervise a $1000-$ foot diamond drill program on Aggressive's mineral showings near Morice Lake in the Omineca Mining Division of British Coluabia.

The writer, who was in charge of the work, left Vancouver July 18th, accompanied by Mr. Frank Polkosnik of Mid-West Diamond Drilling Ltd. In order to check the water availabllity (Dr. Bacon had previously checked snow conditions), a small helicopter was obtained that evening and, after a 55 minute flight from Houston, B.C., landed on the showings. Water was found in ample supply and, after a short reconnaissance of the exploration trenches, we returned to Houston. The diamond drill equipment arrived the following day and was trucked to the head of Morice Lake to a landing some 22 wiles from the showings. The equipment and 6 men were airlifted in 14 hours by a Jet Ranger helicopter. Drilling started on the afternoon of July 21 st and was completed July 31st.

In the following report, in addition to the drill results, the writer has included information on the location and access to the property. The isolated location and the climatic conditions are items that would definitely require consideration in any future plans for the property.

## LOCATION

The property is located on a narrow plateau at an elevation of approximately 6500 feet, some 4000 feet above Morice Lake. This plateau, about 1000 feet wide by $1 \frac{1}{2}$ miles long, is located in the central core of a very rugged mountain complex, some 8 miles in diameter, that borders a portion of the westerly side of Morice Lake. The northerly aide of the plateau contains several small glaciers and snowfields whereas the south and east sides are bordered by a narrow, deeply incised valley. This valley is the main access fly-route to the plateau. It is occupied by a stream that flows east at the base of the plateau, then swings to a near-north direction, discharging on the south side of Atna Bay. The precipitous nature of the plateau area is demonstrated by the fact that the writer could find only one small area, just south of the trenches, in which he could safely descend to the valley floor some 800 feet below.

## ACCESS

Access to the property, other than by helicopter, is from Houston, B.C.; where a good Forestry road some 50 miles in length terminates at the discharge end of Morice Lake. A boat would be required to travel 15 miles down-lake and to the south side of Atna Bay. The access valley, previously mentioned, leads directly to the showings. This particular valiey is timbered for about three miles with the remaining 6 miles being precipitous rock slopes and steep talus adjoining the creek bottom.

## WEATHER

The Forestry Department informed the writer that a normal flve feet of snow is found at the 2600 foot elevation around Morice Lake. The snowpack will obviously increase at the higher elevations towards the property. In the opinion of the writer, the untimbered slopes of the access valley will be one continuous snowslide belt for approximately six miles.

## SHOWLNGS

The surface geology and pertinent details regarding the trenches have been covered by previous reports. To recap, a northerlystriking, fracture-filled quartz zone containing lead, zinc and copper mineralization has been traced by a series of trenches across a plateau. The width of fracturing is about $40-50$ feet and has been traced definitely for 550 feet. The main trenches are numbered 1, 4, 5 and 3 with \#3 being the most northerly trench. A snowfield obscures the continuation of the fracture zone north of 13 , but a caved trench some 600 feet north of \#3 and at the edge of the plateau is said to show a fractured pyritic zone. South of 非l trench, the ground drops steeply into the valley below. One trench, about 200 feet south of 1 and presently covered, showed noticeable copper stain on the dump rock.

The dip of the fractured zone is not clear. A narrow shear in trench ${ }^{11}$ and also the general surface vein trace indicate a possible easterly dip whereas the E.M. survey suggested a westerly dip.

## DIAMOND DRILLING

Pive 1-5/16 inch ' BQ ' dxi.11 holes, having a combined length of 1025 feet, were placed along a 450 -foot length of the mineralized fracture zone. They varied in length from 163 to 287 feet. One hole was collared to the west of the trenches, while the remaining four werc located to the east. The easterly holes all intarsected the principal fractuxe zone.

No. 1 hole was collared to the west of Trench No. 1 and was drilled to test the westerly dip interpretation of the E.M. survey. The core was barren of mineralization and showed no evidence of the quartz network found in the exploration trenches.

The remaining four hoies intersected the principal fractured zone and confirmed its easterly dip. They also indicated that the main structure is confined to a volcanic member that has been fractured and filled with varying amounts of quartz and calcite to produce a network structure.

There are no definite walls to the network. The main silicified zone would appear to be about $25-30$ feet wide; howevers scattered mineralization is found in isolated quartz vainlets up to 100 faet into the hangingwall.

Hole No. 2 Intersected 17 feet of minerallzed quartz vainlets in the hangingwall zone. This footage was sampled and assayed to illustrate the character of mineralization that does occur outside the main zone.

Holes 4 and 5 were the most interesting ones of the program. They were drilled from the same setup to intersect the network below No. 3 Trench. No. 4 was drilled at $-45^{\circ}$ while No. 5 was at $-60^{\circ}$, to intersect the central portion of the network at 90 and 140 feet respectively, below the outcrop. Both holes intersected strong quartzveining with galena and sphalerite occurring in veiniets and patches. Several sections showed $2-4$ inch patches of solid lead and zinc mineralization.

SAMPLING

Minerallzed core from Holes 2 and 3 was sampled on the property. The core was split - one half being returned to the core box. The ore sections from Holes 4 and 5 were sealed in their boxes and shipped to Vancouver for the inspection of Dr. W.R. Bacon. In consultation with him, the writer marked out the sections and removed the entire mineralized core for assay.

The assays were performed by Chemex Labs Ltd. of North Vancouver, B.C.

Hole No. 2 indicated a weighted average assay value of $6.3 \% \mathrm{zn}_{\text {, }}$ less than $1 \% \mathrm{~Pb}$ and less than $\frac{2}{\mathrm{~s}} \mathrm{om}$. silver to the ton, over a true widh of 25 feet. An isolated mineralized network was assayed from the hangingwall area in Hole 2 and averaged $2.2 \% \mathrm{Zn}$ and less than 1\% Pb, over 17 feet.

Hole No. 3 indicated an average assay of $4.9 \% \mathrm{Zn}$ and $1 \% \mathrm{~Pb}$ over a probable width of 25 feet. Againg the silver values were less than 0.5 oz . to the ton.

Hole No. 4 intersected 38 feet of mineralized cores however, the quartz zone steepens in this area so that the true width is between $30-35$ feet. This hole averaged $3.3 \% \mathrm{Zn}_{1} 1.5 \% \mathrm{~Pb}$ and less than 0.5 oz . silver to the ton. One efght-foot section at the footwall assayed $10.1 \% \mathrm{Zn}, 3.9 \% \mathrm{~Pb}$ and 0.84 oz. silver per ton.

Hole No. 5 indicated an assay of $6.5 \% \mathrm{Zn}, 2.9 \% \mathrm{~Pb}$ and less than 1 oz. silver per ton, over a core length of 54.5 feet (true width $30-35$ feet). A 31.5 foot section of this core (true width 20 feet) had a weighted average of $9.4 \% \mathrm{Zn}, 4.1 \% \mathrm{~Pb}$ and 0.77 oz. silver to the ton.

Gold assays run mainly trace to low with four samples out of 27 assaying . $06-0.13$ oz. per ton. Copper is a minor accessory metal and averages less than $0.20 \%$.

## SUMMARX

During the period July 18-31, 1972 the writer supervised a diamond drill program for Aggressive Mining Ltd. on their Morice Lake property in the Omineca Mining Division.

The purpose of the drilling was to investigate a mineralized quartz network that had been explored, in part, over a length of some 1,000 feet. The drilling was restricted to a portion of the vein that had been previously explored by four deep trenches.

Five holes were drilled for a combined total of $\mathbf{1 , 0 2 5}$ feet. Four of the holes intersected the easkerly dipping principal zone of fracturing and indicated a width of mineralization varying from 25 35 feet.

Mineralization consists of sphalerite, galena, chalcopyrite and pyrite. These minerals occur as blebs, disseminations and veinlets within the quartz. Occasionally there are solid patches of 2 - 4 inches of lead and zinc mineralization.

The calculated weighted average of the drill core assays indicate values of between $5-6.5 \% \mathrm{Zn}$., less than 1 to $2.9 \% \mathrm{~Pb}$. and silver less than one oz. per ton. Copper values average less than $0.20 \%$ while gold is mainly in the trace to low range.

## CONCLUSIONS

The writer, in no way, believes that the four shallow exploration holes have told the full story on the lead-zinc mineralization on this property. These stockwork structures are good exploration targets and have provided pleasant surprises in a number of developments. The one characteristic that is disappointing at Morice Lake, however, is the consistently low silver values regardless of the lead or zinc content. In our opinion, this property must have higher values in the precious metals to compensata for its difficult location, because this prospect appears to be a low-grade base metal deposit carrying insignificant values in the precious metals.

Respectfully submitted, BACON \& CRONHURST LTDD.
D.W. Burns, B.Sc., P. Eng.


## DLAMOND DRILL HOLE

| Location - | 140\% west of Trench 维 Depth - $252.0^{\circ}$ |
| :---: | :---: |
| Strike - | East. Recovery - 90\% |
| Dip - | -40 ${ }^{\circ}$ |
| Start - | July 21/72 |
| Complete - | July 23/72 |
| $0-71$ | Overburden - talus rock. |
| 7-40 | Quartz porphyry. |
| 40-68 | Volcanic breccia. |
| 68-73 | Fine-grained dyke. |
| 73-89 | Volcanic breccia. |
| 89-93 | Tuff - red coloured and bended. |
| $93-116$ | Volcanic breccia - red groundmass and green fragments. |
| 116-140 | Volcanic breccia - greenish groundraass, red fragments. |
| 140-170 | Purple basalt - tuffaceous 163-170 |
| 170-185.5 | Volcantc breccia - green groundmass, red fragments. |
| 185.5-193 | Volcanic breccia - red groundmass, green fragments. |
| 193-198 | Fine-grained tuffaceous rock. |
| 198-210 | Volcanic breccia - red groundmass, red fragments. |
| 210-230 | Green to red volcanic breccia. |
| 230-242 | Quartz porphyry. |
| 242-252 | Red volcanic breccia. |

END OF HOLE

## DIAMOND DRILL HOLE 存2



## ASSAYS - D.D.H. \#2

| Sample No. | Feet | Cu\% | $\mathrm{Pb} \%$ | 2n\% | $\begin{aligned} & \mathrm{Au} \\ & \mathrm{Oz} \cdot / \text { ton } \end{aligned}$ | $\begin{aligned} & \mathrm{Ag} \\ & 0 \mathrm{z} . / \text { ton } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 87451 | 23-29 | 0.05 | 0.58 | 1.89 | * 0.003 | 0.12 |
| 87452 | 29.37 | 0.07 | 0.53 | 1.61 | * 0.003 | 0.15 |
| 87453 | 37-40 | 0.10 | 0.36 | 4.55 | * 0.003 | 0.15 |
| Total | $17.0^{\circ}$ |  |  |  |  |  |
| 87454 | 97-100 | 1.87 | 0.77 | 6.80 | \%0.003 | 0.90 |
| Total | $3.0{ }^{\prime \prime}$ |  |  |  |  |  |
| 87455 | 114.5-124 | 0.50 | 0.23 | 2.30 | * 0.003 | 0.42 |
| 87456 | 124-133 | 0.18 | 0.46 | 5.31 | * 0.003 | 0.30 |
| 87457 | 133-140 | 0.16 | 1.65 | 13.20 | 0.13 | 0.61 |
| Total | $26.5{ }^{\text { }}$ |  |  |  |  |  |

[^0]

DIAMOND DRILL HOLE 靠3

| Location - | $200^{\prime}$ east centreline trenches, Depth - $287^{\circ}$ <br> $200^{\prime}$ north $\# 2$ D.D.H. Reccvery - +90\% |
| :---: | :---: |
| Strike | West |
| Dip | -45 ${ }^{\circ}$ |
| Start | July 27/72 |
| Complete | July 28/72 |
| $0-2^{\circ}$ | Casing. |
| $2-24.5$ | Green to reddish tuff. |
| 24.5-51 | Mainly banded light green tuff - banding indicated near flat bedding - minor pyrite disseminations. |
| 51-93 | Brecciated volcanics in part - sections of green-coloured andesite volcanies.. |
| $93-117$ | ```Brecciated volcanics - some quartz veining - sparse grains of chalcopyrite, several veinlets - up to 1" calcite. Pyrite distributed throughout.``` |
| 117-139 | Fine-grained andesitic volcanics - five stall quartz and calcite stringers with PbS and ZnS and chalcopyrite mineralization sparse. |
| 139-163 | Light grey fine-grained volcanics - a number of $1^{\prime \prime}$ quartz and calcite stringers carrying sparse chalco, PbS and ZnS . |
| 163-170 | Volcanics with increase in quartz-calcite stringers ${ }_{4}^{\frac{3}{4}}$ to $2^{\prime \prime}$ - minor mineralization. |
| 170-175 | Increase in fracturing - quartz-filled - mineralization scattered. |
| $175 * 185$ | Same. |
| 185-187 | Fine-grained, volcanic - no fracturing - no mineral. |
| 187-191 | Brecciated volcanics - fractured with quartz-calcite. Several stringers of ZnS and PbS . |
| 191-195.5 | Breccisted volcanics - broken core and oxidized in part patchy mineralization - oxidized and shared 194-195. |
| 195.5-217 | Volcanics - fine-grained and solid core, fracturing ends at 195.5. |
| 217-287 | Footwall quartz-porphyry - solid core - unmineralized. |

## ASSAYS - D.D.H. *3

| Sample Mo. | Feet | $\mathrm{Cu} \%$ | Pb\% | 2n\% | $\begin{aligned} & \mathrm{Au} \\ & \mathrm{Oz}, / \text { ton } \end{aligned}$ | $\begin{aligned} & \mathrm{Ag} \\ & \underline{\text { oz. } / \text { ton }} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 87458 | 170-175 | 0.11 | 0.43 | 4.40 | * 0.003 | 0.23 |
| 87459 | 175-185 | 0.07 | 0.66 | 2.71 | * 0.003 | 0.22 |
| 87460 | 187-191 | 0.16 | 1.00 | 5.31 | * 0.003 | 0.39 |
| 87461 | 191-195.5 | 0.26 | 3.35 | 12.30 | 0.033 | 0.82 |

[^1]

## DIAMOND DRILL HOLE ${ }^{1 / 4}$

| Location | $115^{\circ}$ east of \#3 Trench, Depth $-135.0^{\prime}$ <br> $200^{\prime}$ north of D.D.H. \#3 Recovery - $490 \%$ |
| :---: | :---: |
| Strike | N65\% |
| Dip | -45 ${ }^{\circ}$ |
| Start | July 29/72 |
| Coaplete | July 30/72 |
| $0-45.5$ | Mainly banded grey to red tuff. |
| $45.5-93$ | Fine-grained tuff, grey,much fractured, quartz-calcite filled - mineral sparse - few blebs of PbS noted. |
| 93-98 | Fractured volcanics - quartz veining increasing - scattered PbS and ZnS , considered minor. |
| 98-103 | Medium amount of quartz and calcite stringers - typical thin bandings of PbS and ZnS (up to $1 / 8^{\prime \prime}$ thickness). |
| 103-109 | Much quartz and notable calcite - similar mineralization as last section. |
| 109-114 | Much quartz (over $80 \%$ of core), fine blebs and thin veinlets of PbS and ZnS . |
| 114-119 | Same: |
| 119-127 | Much quartz - several 2 to $3^{10}$ patches of solld PbS and ZnS . |
| 127-131 | Some mineralization - decreasing amount of quartz, slip at 131', bleached. |
| 131-135 | Much Less fracturing, tuff darker and barren. |

END OF HOLE
ASSAYS - D.D. H. 社

| Sample No . | Yeet | $\mathrm{Cu} \%$ | Pb\% | $\mathrm{Zn} \%$ | Oz.Iton | $\begin{aligned} & \text { Ag } \\ & 0_{z .} \text { ton } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 87462 | 93-98 | . 01 | 0.14 | 1.00 | * 0.003 | 0.11 |
| 87463 | 98-103 | . 03 | 0.29 | 0.98 | * 0.003 | 0.16 |
| 87464 | 103-109 | . 04 | 0.36 | 1.40 | * 0.003 | 0.22 |
| 87465 | 109-114 | . 01 | 0.31 | 1.06 | * 0.003 | 0.11 |
| 87466 | 114-119 | . 39 | 0.34 | 1.62 | * 0.003 | 2.66 |
| 87467 | 119-127 | . 07 | 3.90 | 10.10 | 0.061 | 0.84 |
| 87468 | 127-131 | . 04 | 1.22 | 3.20 | 0.026 | 0.32 |
| Total | 38.0* |  |  |  |  |  |

```
Location - (at #4) 200' north D.D.H. #3. Depth - 188.0'
Strike - N65% Recovery - 90%
Dip - -60%
Start - July 30/72
Complete * July 31/72
    0 - 30.5 Partly banded tuff.
    30.5-80 Light-coloured tuff - minor network of quartz veinlets.
    80-106 Same.
106 - 116.5 Tine-grained tuff, some brecciated volcanics*
116.5-124 Mainly grey tuff - several small quartz sections 2" to 3'0
124-131 Much quartz (80% of core) with patches and hebs of PbS
    and ZnS. Also fine banding of PbS.
131 - 136 Same.
136 - 142 Seme.
142-147 Same - some oxidation of seams - PbS and ZnS - fresh
    appearance and fine-grained.
147-153 Much quartz - several solid patches of EbS. General
    appearance is falr mineral.
153-161 Mainly broken and fractured volcanics - few l" quartz
    sections - considered poorly mineralized.
161 - 166 Heavy quartz section - typical blebs, patches and veinlets
        of mineralization.
166-171 Same, core little more broken, oxidized along searas.
171-178.5 Core solid but rusty appearance, quartz vuggy - typical
    mineralization - possible footwall shearing at 178.5.
178.5 - 188 Quartz veining minor - change in colour to raddish basaltic
    colouring, no mineral. Considered footwall rock.
```

| Sample No. | Feet | $\mathrm{Cu} \%$ | Pb\% | 2n\% | $\begin{aligned} & \mathrm{Au} \\ & \mathrm{Oz} \cdot / \text { ton } \end{aligned}$ | $\begin{aligned} & \mathrm{Ag} \\ & \underline{0 z} . / \text { ton } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 87469 | 124-131 | 0.05 | 2.15 | 4.48 | * 0.003 | 1.02 |
| 87470 | 131-136 | 0.06 | 0.92 | 1.78 | 0.011 | 0.93 |
| 87471 | 136-142 | 0.11 | 0.96 | 3.44 | * 0.003 | 0.34 |
| 87472 | 142-147 | 0.02 | 0.40 | 1.82 | * 0,003 | 0.09 |
| 87473 | 147-153 | 0.21 | 11.00 | 14.00 | 0.078 | 1.60 |
| 87474 | 153-161 | 0.10 | 2.44 | 6.16 | 0.015 | 0.63 |
| 87475 | 161-166 | 0.14 | 4.64 | 7.28 | 0.11 | 0.55 |
| 87476 | 166-171 | 0.35 | 1.68 | 10.70 | 0.024 | 0.54 |
| 87477 | 171-178.5 | 0.31 | 1.97 | 9.68 | 0.016 | 0.57 |
| Total | $54.5{ }^{\circ}$ |  |  |  |  |  |



Northeast edge of plateau looking down afr-route valley to property. Morice Lake in background. Picture taken from I.P. JOW 非10 M.C. approx. $3000^{\prime}$ east of showing.

North edge, plateau, 500 feet north of Trench 3 . Valley parallels air-route valley. Glacier in foreground Atna Lake, background.

Picture looks easterly from No. 1 Trench. Looks into glacial valley that borders south edge of plateau. Valley twines left to join valley in Picture 1.

## CERTLFICATE OF QUALTFLCATIONS

I. David W. Burns, of Suite 203-5976 Tisdall Street, City of Vancouver, Province of British Columbla, DO HEREBY CERTIFY THAT:

1. I am a graduate geological onginear from the University of British Columbia, 1944.
2. I. am a nember of the Association of Professional Engineers of British Columbia.
3. I have been associated with exploration, property development and production in the mining profession for the past twenty-eight years.
4. This report is based on the writer"s on-site supervision of the exploration From July 18th - July 31st, 1972.
5. I have no interest, directly or indirectly, in tha securities of Aggressive Mining Limited, nor do I expect to acquire any such interest.

David W. Burns, B. Sc. . P. Eng.

Vancouver, Canada. August 11 th, 1972.


[^0]:    * 

    Less than

[^1]:    Total
    $23.5^{\circ}$

