822632

# METALL MINING CORPORATION

MEMO

To: I.M.

From: John Kapusta

Copies: G.R., G.S.W.

Date: October 10,1994

Subject: ***St. Joe Property - Aldridge Formation - Acquisition Proposal***

**It's recommended that the St. Joe Property be considered for immediate option. This recommendation is based on the following:**

- **The presence of known stratiform base metal mineralized tima horizons**
- **The presence of an anomalously thickened stratigraphic section at Meadowbrook time**
- **The presence of a strong coincident lead, zinc and arsenic "leakage" anomaly**
- **Proximity to a major northeast trending fault structure**
- **Evidence of a mineralizing system below R + 200 feet**
- **The presence of UTEM anomalies associated with Meadowbrook time stratigraphy**

The St. Joe property is host to the same time equivalent stratigraphic horizon as the Kootenay King and Estelle deposits. The Kootenay King and Estelle deposits are stratigraphically located between the Meadowbrook and R Markers. Both of these Markers have been identified on the St. Joe Property. The Kootenay King deposit hosted 14,600 tons grading 5.48% Pb, 6.51% Zn and 1.94 opt Ag. The Estelle Deposit hosted 120,720 tons grading 4.72% Pb, 8.98% Zn and 1.70 opt Ag. Given the SEDEX exploration model, there is no reason why a significant deposit can not be located between the Meadowbrook and R Markers. Both the Kootenay King and Estelle deposits are evidence to a mineralizing event occurring between the Meadowbrook and

R Markers. The ultimate target would be another Sullivan Deposit, 160,000,000 tonnes grading 6.50% Pb, 5.60% Zn, and 67 gpt Ag.

In addition to the presence of the Meadowbrook and R Markers on the property there is also an anomalously thickened section of sedimentation at Meadowbrook time. This thickened section is refered to as intermarker sedimentation on the geology plan maps. The significance of this thickening Is that it potentially represents the development of a third order basin.

Exploration work conducted to date on the St. Joe property has identified an immediate target. A major NE - SW trending fault structure that cross cuts the property and intersects the Cranbrook Fault structure has a significant coincident base metal, and arsenic "leakage" anomaly associated with it. This base metal "leakage" anomaly has been identified from a previous operators soil sampling program. Soil samples are anomalous in lead, zinc and arsenic. Lead values to 211 ppm (background 22 ppm), are associated with zinc values to 469 ppm (background 121 ppm) and arsenic values to 180 ppm (background 7 ppm). Trenches excavated on this coincident anomaly identified both vein and disseminated lead, zinc mineralization. The NE trending fault structures are considered to be very important with respect to base metal mineral exploration in the Aldridge Camp. These structures parallel crustal structures that locally controlled the configuration to the Purcell basin margin and localized structures that controlled the discharge of metalliferous fluids responsible for the formation of stratiform sulphide deposits.

Also present on the property at approximately the R + 200 foot time marker is a discordant breccia with carbonate, sulphide and tourmalinite alteration. The fragmental bodies are hosted in a carbonate bearing wacke unit that is underlain by a carbonaceous wacke. This carbonaceous wacke contains subconcordant lenses of black and pale tourmalinite. The fragmental is composed of both rounded pebble sized clasts and angular clasts (to 30 cm) of wacke in a predominately fine grained wacke matrix. Pebble sized clasts of tourmalinite and pyrrohotite can be found in the fragmental. Proximal to this fragmental outcrop is a massive pyrrohotite lens (4 by 0.3 m in dimension), that contains lithic fragments. This is believed to be a sulphide rich concordant breccia. The geological significance of these breccia units is that at a lower time horizon (Meadowbrook or R time) there is evidence of a mineralizing system that had tourmalinite alteration and sulphides associated with it.

A number of UTEM anomalies are located immediately off the south edge of the claim group. These anomalies are associated with the anomalously thickened section of sedimentation at Meadowbrook time.

Also, G.S.W.'s assistance during an examine of this property earlier is graciously acknowledged.

**Proposed Program**

On acquisition the following exploration program would be proposed:

♦ Grid cutting in preparation for a PEM survey, this would be in the order of 28 kilometers for a 200 meter line spaced survey or 18 kilometers for a 400 meter line spaced survey.

♦ Conduct a PEM survey over a four square kilometer area. This would be in the order of 22 kilometers of PEM on a 200 meter spaced grid or 12 Kilometers of PEM on a 400 meter spaced grid.

♦ Diamond drilling to test any PEM anomalies generated from the survey work. Drill holes would be in the 450 meter depth range. The nature of the mineralization present at the Kootenay King deposit is such that it may not be a very good conductor. The mineralization is predominately massive sphalerite and galena. This is one of the few mineral occurrences in the Aldridge that does not contain significant pyrrhotite.

**Proposed Program Costs**

For a **200 meter spaced grid plus the PEM** survey costs would be in the order of **$23,800**. This is based on 22 kms of PEM at $700 per/km ($15,400) and 28 kms of grid at $300 per/km ($8,400).

For a **400 meter spaced grid plus the PEM** survey costs would be in the order of **$17,400**. This is based on 12 kms of PEM at $1000 per/km ($12,000) and 18 kms of grid at $300 per/km ($5,400).

If drilling is warranted, all up contract costs would be in the $70.00 per meter range. A 450 meter drill hole would cost approximately $31,500.

**Maximum contract costs for a cut line grid, PEM and diamond drilling would be in the $55,000 range.**

Attention: John Kapusta
Metall Mining Corp.

# PROPOSED "ST. JOE" AGREEMENT

1) A firm payment of $4000 on signing.

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|---|---|
| Optional payment year 2 of agreement | $ 12,000 |
| Optional payment year 3 of agreement | 48,000 |
| Optional payment year 4 of agreement | 104,000 |
| Optional payment year 5 of agreement | 208,000 |
| Optional payment year 6 of agreement | 316,000 |
| Optional payment year 7 of agreement | 308,000 |
| Total payments | $1,000,000 |

Plus 1.5% N.R.S.

There are four (4) owners, therefore all payments are divisible by four (4).

2) Various agreements by Metall:

a: Metall will do and record such assessment work, or pay such money in lieu thereof, as may be required to keep the property in good standing during the subsistence of the Agreement.

b: Should Metall elect not to exercise the agreement, Metall shall leave the property in good standing for four (4) years beyond the date of abandonment.

c: Should the agreement not be exercised Metall will, upon request, deliver to the owners copies of all plans, assays, maps and diamond drill core and records relating to Metalls operations on the property.

David L. Pighin

**ST. JOE Property**
Ft. Steele M.D.
N.T.S. 82G/5W

| Claim Name | Units | Record No. | Anniv. Date |
|---|---|---|---|
| St. Joe 1 RL | 1 | 209906 | March 1/2001 |
| St. Joe 2 RL | 2 | 209907 | March 1/2001 |
| St. Joe Fr. | 1 | 209908 | March 1/2001 |
| St. Joe No. 3 | 9 | 209662 | Oct. 24/2001 |
| St. Joe No. 4 | 6 | 209663 | Oct. 27/2001 |
| St. Joe No. 5 | 1 | 209666 | Sept. 7/2001 |
| St. Joe No. 6 | 2 | 209667 | Sept. 7/2001 |
| St. Joe 7 | 10 | 209905 | Mar. 1/2001 |
| St. Joe 8 | 4 | 209904 | Mar. 1/2001 |
| St. Joe 9 | 3 | 209923 | Sept. 28/2001 |
| St. Joe 10 | 1 | 318823 | June 25/2001 |
| St. Joe 11 | 1 | 318824 | June 25/2001 |
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| To JOHN KAPUSTA | From DAVE PIGHIN |
|---|---|
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