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**CANADIAN MINE DEVELOPMENT**

A Division of Hillsborough Resources Limited

120 Railroad Street  
Brampton, Ontario  
L9X 1G8Business: 416-460-0726  
Fax: 416-460-2784

July 19, 1990

Mr. Colin Benner  
Executive Vice President - Mining  
Curragh Resources Inc.  
#1900 - 85 Wellington St. West  
TORONTO, ON  
M5J 2N7

Dear Mr. Benner:

**RE: STEFFEN, ROBERTSON & KIRSTON REPORT  
ON ROOM AND PILLAR MINING**

We have reviewed the report prepared by Steffen, Robertson and Kirston. Although we concur with the recommendations in the theoretical part relating to pillar sizes, etc., the writer makes generalizations without facts and evidence in the practical part - following SRK path in the Cassiar mine. We resent such an approach, as it is not sound professional practice.

We would like to comment on the following specific concerns we have:

1) *The fifth paragraph of the covering letter on page 2.* We have not approached the work in a fashion typical of a tunnelling contractor. We were involved in the geological evaluation of the orebody and underground design and optimization. Pillar sizes and drilling and blasting pattern were presented and discussed with Curragh from 1985 to 1988.

As you know, Canadian Mine Development was involved in layouts and mining in Elliot Lake for seven years. We spent many days with Dave Hedley on the optimization of the mining method in Elliot Lake. The same level of care and control exercised in the Elliot Lake operations are being maintained at the Faro Project. To say that the work is typical of a tunnelling contractor is unfair.

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2) *Underground Stability, page 3, fourth paragraph.* We agree with the theory that a three foot thick skin of ore left on the hangingwall would improve stability of the roof in the rooms. In practice, however, given the amount of folding and faulting, it is impossible to maintain three foot thicknesses without the risk of either breaking into the graphitic quartz in the hangingwall or leaving an excessive volume of ore in the roof.

3) *Equipment available to inspect the roof, page 3, fifth paragraph.* We did not consider it necessary to have equipment on site to inspect 50 foot high backs. Therefore, the back and pillar walls must be supported prior to benching. As we indicated in our previous layouts, we concur with the writer that there will be adjustments in the pillar and room sizes as more practical experience is gained through mining.

4) *Pillar Stability, page 4, first paragraph.* Not to scale the pillar walls and rockbolts loose rock is against sound mining practice and Mine Regulations governing mining in the Yukon.

5) *Rock Support, page 4.* We concur that mechanical bolts are inferior to the split sets, which are less reliable than grouted rebar. However, we would recommend resin grouted rebars in the rooms.

As you know, after three rounds, we stop the drift for diamond drilling and to find the footwall and hangingwall contours. In many cases, due to the ore folding, we slash the ore in the back, temporarily leaving the original ground support in place. It is not and it was not loose, and the original ground support is being replaced as the work progresses.

6) *Comments on drilling and blasting technique.*

The three boom jumbo has automatic parallelism; the two boom jumbo does not.

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We mark all drill holes in the face and use line and grade plugs in every heading. Company policy dictates careful blasting and use of Xactex in all backholes and on the perimeter of the pillars in the rooms. You will also note that where the sulphides are in the back and the back was not slashed, half barrels of the drills holes can be seen in the back.

Development is carried out under geological control, striving to follow the extensive folding pattern. It is the foliation of the ore and backslashing - not hole misalignment - that causes the uneven shanty back. | ?

We have modified the pillar mode from rectangular to octagonal by removing the corners of the pillar, as it is impossible to drill 90° holes off the axis of a 16 foot wide drift. In any case, the corners would become loose and would have to be scaled down. =>

It is not practical to increase the drilling pattern to 4.5 x 4.5 feet. This would cause large fragmentation and missholes, like we experienced in the first quarter of 1990. | ?

In conclusion, I would like to emphasize that the good points in the SAR report are suppressed by unsubstantiated and wrong accusations. | ?

On our behalf, I assure you that we will do our utmost to complete the mining efficiently and in a workmanlike manner.

Yours very truly,

**CANADIAN MINE DEVELOPMENT**

*J. I. Tatak*

J. I. TATAK, P.Eng.  
Vic President Engineering