

**CURRAGH RESOURCES INC.**

Inter-Office Memorandum

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**RE: DY FAULT**

**DATE: 07 05 1990**

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**INTRODUCTION**

Problems were encountered in drill hole 89DS-02 with a fault zone extending over the interval 128.1 - 130.5 m. Looking at vertical cross section L15+00, this fault correlates well with logged fault zones in 78X-10 (138.4 - 141.4 m) and 89DS-01 (146.6 - 166.1 m).

The centre point for each of these intervals was converted to x, y, z coordinates using the extraction file in PC-XPLOR. These coordinates are as follows:

<b>DDH</b>	<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
78X-10	901366	597342	966
89DS-01	901388	597336	949
89DS-02	901358	597337	979

The plane containing these points has orientation 130 / 53 NE. With this strike and dip, the core axis angle for the fault margins would ideally be 37° (assuming a vertical drill hole). Measured angles from the drill logs are 38° (lower contact from 78X-10), 25° (upper contact from 89DS-02) and 40° (lower contact from 89DS-02).

**FIELD MAPPING RESULTS**

Three days were spent geologically mapping in the immediate vicinity of the 1989 pilot holes. Major emphasis was on recording all available outcrop and

Dy  
Geology  
xref to shaft  
to Pilot hole  
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Memorandum  
July 5, 1990  
Page Two

mapping lithologic contacts. Structures were recorded only in a few instances. Many of the "outcrops" consisted of phyllite scree with no measurable structure.  $S_2$  foliations were generally gently dipping both to the southwest and southeast.

The resulting geological map shows the following sequence of units progressing from southwest to northeast:

1. intimately interlayered metabasite and hornfelsed green Vangorda phyllite (site of drill hole 77X-11);
2. silvery grey, calcareous Vangorda phyllite;
3. intimately interlayered metabasite and hornfelsed green Vangorda phyllite (pilot hole sequence);
4. moderately carbonaceous Vangorda phyllite with minor thin metabasite bands;
5. metabasite with lesser hornfelsed green Vangorda phyllite.

With general S-vergence for  $D_2$  structures (valid for pilot hole area), this sequence as listed progresses from structurally and stratigraphically youngest to oldest. Therefore unit 3 contains a thick phyllite sequence both above and below it. This metabasite sequence can be traced through the pilot hole area with no apparent discontinuities or offsets. No major faults were noted in any of the outcrops. There is no "mapping" evidence for a major fault offsetting this unit.

The calculated fault strike is very similar to the strike of the metabasite sequence intersected at the top of the pilot holes. Interpretation of section L15+00 shows the western metabasite-Vangorda phyllite contact dips steeply to the northeast. This contact is crudely parallel to the projected trace of the problem fault. The contact is strongly discordant with the general compositional banding of the ore horizons.

The fault would therefore correspond to the southwest contact between units 2 and 3.

Drill hole logs on adjacent sections were scanned to confirm the strike length continuity of unit 3. The logs were not systematically inspected for the fault in question.

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Memorandum  
July 5, 1990  
Page Three

**RECOMMENDATIONS**

If this fault orientation is correct, the fault cannot be avoided by moving the pilot hole only a short distance. More importantly, the shaft also cannot be moved to avoid the fault. Placing the pilot hole in the footwall would probably result in the drill hole intersecting mineralization at depth.

The suggested orientation should be checked by drilling three holes in the vicinity of section L15+00. The locations and orientations of the proposed holes are as follows:

<b>SECTION</b>	<b>Northing</b>	<b>Easting</b>	<b>Orient</b>	<b>Depth (ft)</b>
L15+00	901350.1	597329.4	-60 SW	260
L14+60	901332.1	597286.6	-90	260
L15+80	901297.0	597408.0	-60 SW	250
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			<b>TOTAL</b>	<b>770</b>

If these holes confirm the fault orientation, the fault problem should be controlled by extending the casing beyond the intersected position of the fault.

