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CHEVRON STANDARD LIMITED

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 PROJECT ELK C415 DATE 26 Apr. 76
 SUBJECT DRILLING RECOMMENDATIONS

① AREA # 2. (Refer to 2 profiles through 52E, 32S)

Recom: Collar DDH 76-1 at 52E, 32S
 Incline hole @ -70° to NE

Interpretation:

This site is one of the few which combines high Cu with high P.F.E. In addition the ratio of immobile to mobile Cu is high, Rb/Sr ratio is slightly anomalous, and the area is suitably complex structurally.

On the negative side the P.F.E. anomaly overlies erratic magnetic values, and could therefore be at least partly due to magnetite or pyrrhotite.

A possible structural interpretation is a Cu-rich intrusive stock, at a depth of 100 to 300 feet. The peripheral Zn highs help support this theory; also the high resistivity.

Depth of Hole:

Keeping in mind that the "centre of response" of the I.P. is at a depth of 200 feet, we should not go beyond 400 feet if there is no encouragement, ~~if~~ i.e. no visible Cu, no biotitic alteration. Similarly, more than 100 feet of coarse grained intrusive would be rather discouraging.

With some encouragement, the hole could go up to 600 feet, but to go further in order to possibly locate the rhyodacite, is not justified.

Second Hole in Area 2:

Your choice. Probably not valid unless at least moderate encouragement from 76-1.

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② AREA 3 (Refer to rough profile on line 40w)

Recom: 2 holes, one near each end of the anomalous area. Final choice of positions must depend on new I.P. and basal till data.

Interpretation:

The apparently high degree of structural complexity shown by a number of converging lineaments, makes theorizing difficult. For example, Cu data alone suggests a 1500 foot horizontal offset on the NE lineament, but this is not well supported by the mag data. The I.P. data shows an almost certain change in rock type, correlating well with the major NW airphoto lineament.

The sketch profile drawn along line 40w indicates that this alone would make a good target, unless the new data provides a better location. The somewhat flattened dips on the bedding (which should be about -55°) and the interpreted fault (which might be -70°), are a consequence of the profile not being perpendicular to either feature.

The principal reason for a second hole on the anomaly, aside from its length, is the different characteristics at each end. The E. end has, in addition to good Cu values, anomalous Mo, and anomalous low Sr, so it should certainly be tested independently.

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③ AREA I

Recom: This needs at least one drill hole, and preferably two. On the basis of present data, the first choice would be at the N. end, where there is some Cu correlation. However new I.P. and basal till data may alter the picture radically.

Interpretation:

Not possible. The presence of the "rhyodacite" may be significant.

④ OVERALL PROGRAM

The drilling should almost certainly be restricted to 2000 feet, and the I.P. to 10 line miles. Even at this we will almost certainly overspend the budget. (on the other hand, the drilling could not be less than 2000' without paying some penalty).

D. A.