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MARK ADDISON LTD.

Date: June 6, 1977

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To: W. M. Siroka

From: P. Chow

Subject: VISIT TO YUKON REVENUE MINES' GEM CLAIMS TO EXAMINE
DIAMOND DRILL CORE.

The writer visited the Gem claim property on May 31, 1977 and spent about 4 1/2 hours examining the drill core from the recent diamond drilling program. Also examined bulldoze trenches and rock specimens from other outcrops.

DIAMOND DRILLING

Current drilling program involves 3 holes on strike spaced 800 feet apart plus 2 to 3 more holes dependant on the results of the first three. D.D. Hole #77-1X is located about 500' S30E of GEM 6 I. Post, 77-2X is 800' west, and the proposed 3rd hole another 800' west.

The line of 3 holes is directly over the largest (westerly) zinc geochemical anomaly as outlined in Dixon & Crawhorst's Sept 30/76 report. Qtz-Graph Phyllite with limonitic cavities underlie the area.

D.D. Hole #77-1X

This hole is entirely in ^{host} Quartz-Graphite Phyllite. From bedrock at 35' to 100' the phyllite is weathered, show leached cavities with limonitic stains, but no visible lead-zinc mineralization. From 100-210' the phyllite is not weathering, contains less than 1% ²⁰⁵pyrite blebs, sparse and isolated amber blebs of sphalerite, and no visible galena. Total Pb+Zn content about 0.01%. A few local spots effervesce with HCl. A shear zone composed of highly crushed graphitic phyllite with no visible sulphides occur at 210-234' (recovery about



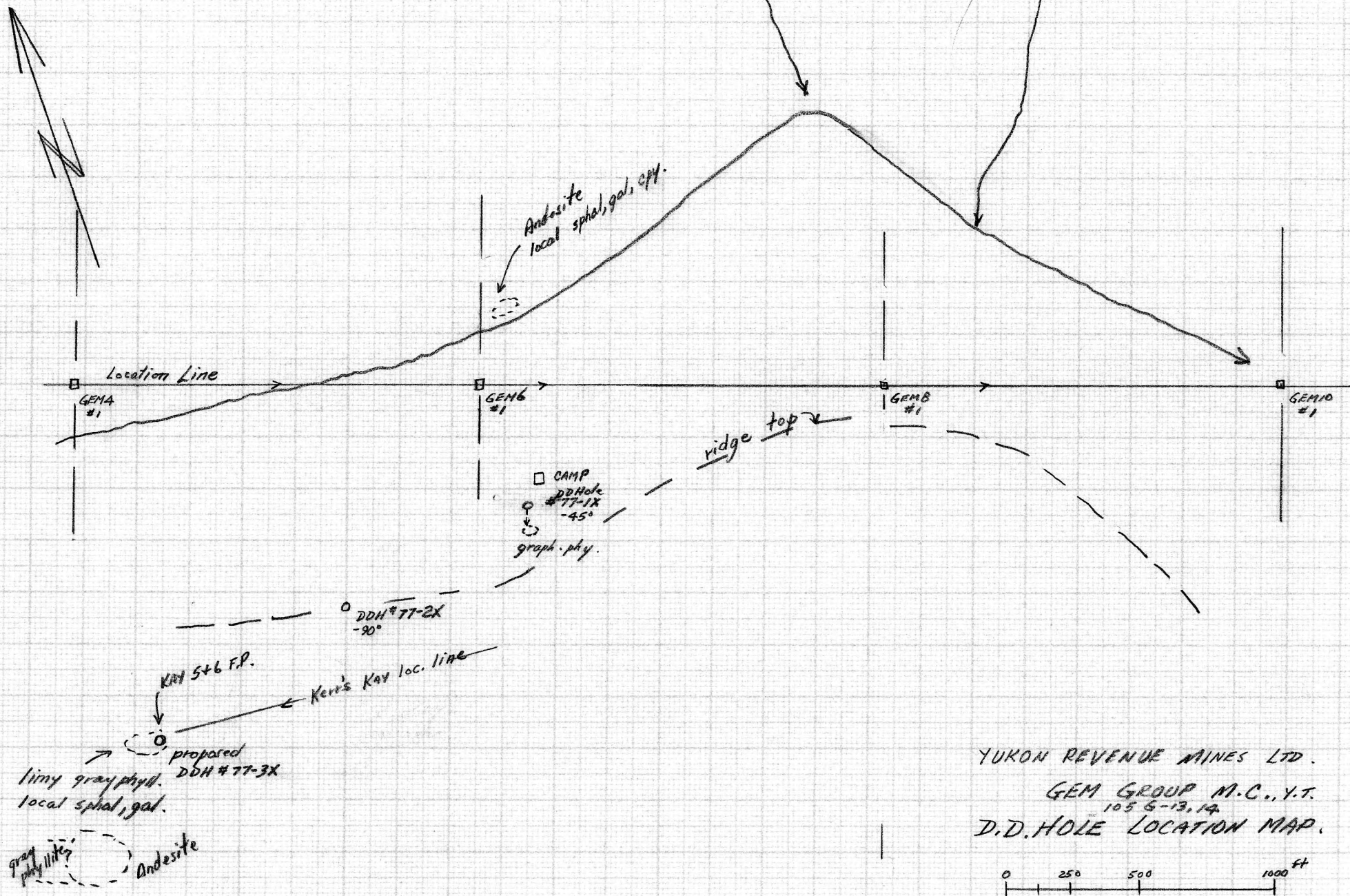
LEGEND

- G = graphite phyllite
- S = sericite "
- Sb = bleached Ser. phyl.
- SC = Ser. Chlorite phyl.
- CS = Chlorite-Ser phyl.
- A = Andesite.

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1056-13, 14

D.D. HALL LOCATION PLANT
plotted in Figure 28 (area 7)
Kerr Addison Field Geochem-Geol. Map.

0 1/2 1 mile
SCALE = 1" = 1/2 MILE



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 D.D.HOLE LOCATION MAP.

10'). The hole was lost at 234 feet.

The phyllite exhibit well developed F_1 & F_2 foliations. Core angles about 60° - 70° from 35'-125' and 75° - 80° from 125' to 210 feet. F_1 is sub-vertical to F_2 .

D.D. Hole #77-2x

From bedrock at 20' to 26' is Qtz-Graph-Calcite Phyllite, 26-96' is med gray Qtz-Ser-Calcite Phyllite, 96-172.5' is Qtz-Graph-Calc Phyllite, and from 172.5-389' is med-gray Qtz-Ser-Calc. Phyllite. This hole is proposed to a depth of 400 feet.

The graphitic phyllite is similar to that in D.D. Hole #77-1x but with less pyrite and no visible sphalerite or galena. The ser-phyl is similar to that of the Grou zone. "S" shaped F_1 foliations are well developed.

D.D. Hole #77-3x (proposed)

This hole is to be located on top of a knoll where isolated but small concentrations of galena-sphalerite occur within a calcareous Qtz-Ser Phyllite unit, about 500-600' NE of a andesite plug. Pb-Zn content in the soils is less than the eastern area.

TRENCHES & PITS

Trenches & pits were excavated mainly in graphitic phyllite showings with limonitic stains. No sulfides were noted. The

leached cavities noted in the graphitic rocks, both in the pits and in the drill core appear to be formed by the leaching of celestite, probably by acidic solutions derived from pyrite, leaving limonitic stains. Some of the cavities show quartz crystals lining the cavity walls. The rock formations strike NW with dips about $10-30^\circ$.

Specimens of sphalerite-galena-chalcopyrite mineralization were presented and these were reported to be found as local occurrences. One from site of proposed D.D. Hole #77-3X location in limy sericite phyllite, second one from andesitic rocks on the north bank of the creek, approximately 500' NE of Gen #6 I.P., and a third specimen from a granitic outcrop located about Gen #9 and 10 F. Posts. The significance of these occurrences is not known. In the main, the mineralization occur as discrete crystals.

One specimen from each of 3 outcrops on the north side of SLIM LAKE (south of Hill area) show muscovite quartzite occurring on the lake shore, sericite-diorite and diorite-sericite phyllite outcropping higher up the hill. The lighter color of these rocks appear to be due to weathering rather than alteration. ^{latter two} These are common rock units found on the overlying phyllite units on the Green deposit. Kerr's 1966 soil geochem show background values in Zn, Pb & Cu along the ^{lake} shore.

CONCLUSION

Sulphide mineralization occur chiefly within the Quartz-

Graphite Phyllite unit which sub-outcrops beneath shallow cover along the ridge. Soil geochemistry ^(LEAD) showing high values along the ridge, decreasing down slope (N), then increasing by accumulation along the south bank of the creek, and then sharply back to background values on the north side of the creek, support this conclusion.

The rocks are similar to the host rock of the Vangorda Pb-Zn deposits. Altered or bleached rocks are not evident.

Assuming that the mineral sulphides in the graphitic phyllites are reflecting more favourable mineralization, then the favourable horizon would be beneath the graphitic unit, ~~just~~ possibly in the lower section of the underlying sericitic phyllites. The best location to test this possibility would be Soudip, north of D.D. Hole #17-1x.

D. L. Clark