N.C. CARTER, Ph.D., P.Eng.

Consulting Geologist

1410 Wende Road
Victoria, B.C. V8P 3T5
(604) 477-0419

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Mr. John S. Vincent, P.Eng.
Vice President, Exploration
Cheni Gold Mines Inc.
200 - 580 Hornby Street
Vancouver, B.C. V6C 3B6

Dear Jack:

Re: Exploration Potential - Al Property
Toodoggone River Area, B.C.

Further to our meeting of November 5, I have prepared a few comments regarding Al property exploration potential which you may find useful.

I also enclose a paper by Brian Jones and Richard Leveille entitled "Application of Metal Zoning and Metal Ratios to Gold Exploration in Porphyry Systems" which was presented at the NWMA meeting in Spokane in 1989. After mentioning this to you and upon further review, this paper may have little direct application to the problem at hand but it does provide a good documentation of gold mineralization peripheral to a number of well-known porphyry systems. There is also reference to epithermal precious metals mineralization distal to, and outside the lead-zinc-silver halo at the Bingham and Yauricocha deposits.

The use of metal ratios to define zoning patterns is an interesting concept that could have some application in the Toodoggone and elsewhere - maybe we can find a use for all that ICP data after all. In summary, this paper is worth a look.

Three references that you have access to and which I consider useful are:

Economic Geology, Vol.86,1991,pp.529-554 - Jurassic Epithermal Deposits in the Toodoggone River Area, Northern British Columbia; by Diakow, Panteleyev and Schroeter.

BCMEMPR Bulletin on Toodoggone by the above three authors - recently released - number not known.

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Geoscience Canada,Vol.13,1986,pp.101-111 - A Canadian Cordilleran Model for Epithermal Gold-Silver Deposits by A. Panteleyev.

I have appended three diagrams of which two are from the above papers and the third (Al property) is from a report I prepared for Energex in 1985 - I'm sure that this is somewhere in your files on the property.

Epithermal Deposits - General

These near surface deposits typically have a considerable strike length with a vertical range of between 100 and 1000 metres and averaging about 350 metres, typically bottoming in barren rock or sub-economic zones containing base metal sulphides.

In form, these are complex branching, irregular veins at or near surface (mushroom-shaped - Buchanan model). Alteration near surface consists of broad argillic zones while at depth the veins commonly contain adularia in addition to quartz.

Buchanan's model suggests that the upper portion of an epithermal quartz vein becomes progressively finer grained, usually represented by chalcedonic quartz. With depth, calcite content of the vein increases, adularia is present as are base metals. Better gold-silver grades commonly occur about 350 metres below the paleosurface.

Epithermal Deposits - Toodoggone Area

Most known Toodoggone deposits have a well-defined "floor". I mentioned to you that initial prospecting of this area (in perfect 20-20 hindsight) could have been carried out to good advantage along the 1700 metre topographic contour. Elevations of known deposits are as follows:

Golden Lion - 1800 metres (Au-Ag + base metals)
Al Zones - 1600 - 1700 metres (Au-Ag)
Mets - 1700 metres (Au-Ag)
JD Zones - 1700 - 1800 metres (Au-Ag + base metals)
Moosehorn - 1250 metres (Au-Ag)
Porphyry Pearl - 1350 metres (Cu-Au)
Golden Stranger - 1600 metres
Lawyers - AGB - 1750 metres (Au-Ag)
- Cliff Creek - Dukes Ridge - 1650 - 1750 metres

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Silver Pond - 1750 metres (Au-Ag)
Baker - 1700 - 1800 metres (Au-Ag + base metals)
Saunders - 1800 metres (Au-Ag + base metals)
Shasta - 1400 metres (Au-Ag)
Kemess South - 1300 metres (Cu-Au)

Obviously there has been considerable vertical displacement along regional faults but it is interesting that many of the known deposits, which represent various vertical ranges, occur at or near this 1700 metre contour. Most deposits have a limited vertical range, examples being the Baker (50 metres) and Lawyers (150 metres).

A few anomalies are evident in the foregoing table including Moosehorn at 1250 metres which theoretically is near the top of a mineralizing system as is the Shasta deposit at 1400 metres elevation. Similarly, the apparent "roots" of epithermal systems, exemplified by the Porphyry Pearl and Kemess South porphyries, are at elevations of about 1300 metres.

Deposits formed at highest structural levels in the district feature low pH or acid cappings and are products of hot spring discharge. These include the Al and Silver Pond deposits which feature extensive clay mineral - alunite alteration zones. Deposits formed at deeper structural levels include the Baker and Saunders deposits with appreciable base metal contents bracketed by pyrite-sericite alteration zones.

Deepest levels are represented by the Porphyry Pearl, Fin and Kemess porphyry Cu-Au (Mo) deposits with the Moose at a slightly higher structural level featuring peripheral low temperature Au-Ag mineralization.

The appended diagram (Figure 5) - the B.C. Epithermal model suggests a continuum from porphyry deposits and skarns to high level hot springs deposits.

Diakow, Pantleyev and Schroeter (Economic Geology papers) identify two styles of epithermal mineralization in the Toodoggone camp including acid sulfate type and adularia-sericite type.

Acid sulfate type deposits, represented by the Al and Silver Pond, formed near surface while adularia-sericite type deposits, examples of which include Lawyers and most other known deposits in the camp, formed at slightly deeper levels.

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Radiometric ages indicate that the Al acid sulfate type deposits, hosted by the oldest Toodoggone volcanic units, represent the oldest epithermal event at about 190 Ma. Most of the adularia-sericite deposits in the camp apparently formed contemporaneously with younger Toodoggone units between 180 and 186 Ma.

Of particular interest is these writers' proposition that the Silver Pond acid sulfate deposits are part of the younger mineralizing event and represent a down-faulted, upper portion of the Lawyers mineralizing system.

Al Property - Recommendations

If the foregoing synthesis re Silver Pond - Lawyers is correct, it is not unreasonable to expect that adularia-sericite or Lawyers type deposits may exist below the acid sulfate type deposits on the Al property.

The three main deposits on the Al property (BV, Thesis, Bonanza) occur within a 3 x 3 km area, are contained in north to northwesterly trending fault zones and consist of branching, quartz (barite) veins and irregular breccia bodies enveloped by broad silica - clay mineral rich alteration zones typical of higher level epithermal deposits.

The foregoing represent targets for additional work. Previous work on the Thesis zone has consisted mainly of closely spaced (10-15 metres spacings) inclined holes which tested the zone to vertical depths of only 40 metres. The style of exploration on the Bonanza zone was similar. I am not aware that the BV zone was tested to depth - the distinguishing feature of this zone was the continuity of grade along strike - the same could hold true to depth.

Deeper drilling of these zones is warranted. Additional work may also be considered for the Alberts Hump and BBX alteration zones - I believe that Kidd Creek did some drilling in the early 1980's. Numerous other showings are indicated on the enclosed sketch map - the amount and results of previous work are unknown.

In summary, this large property holding is definitely deserving of additional investigation. A re-interpretation of previous work on the three major zones is warranted.

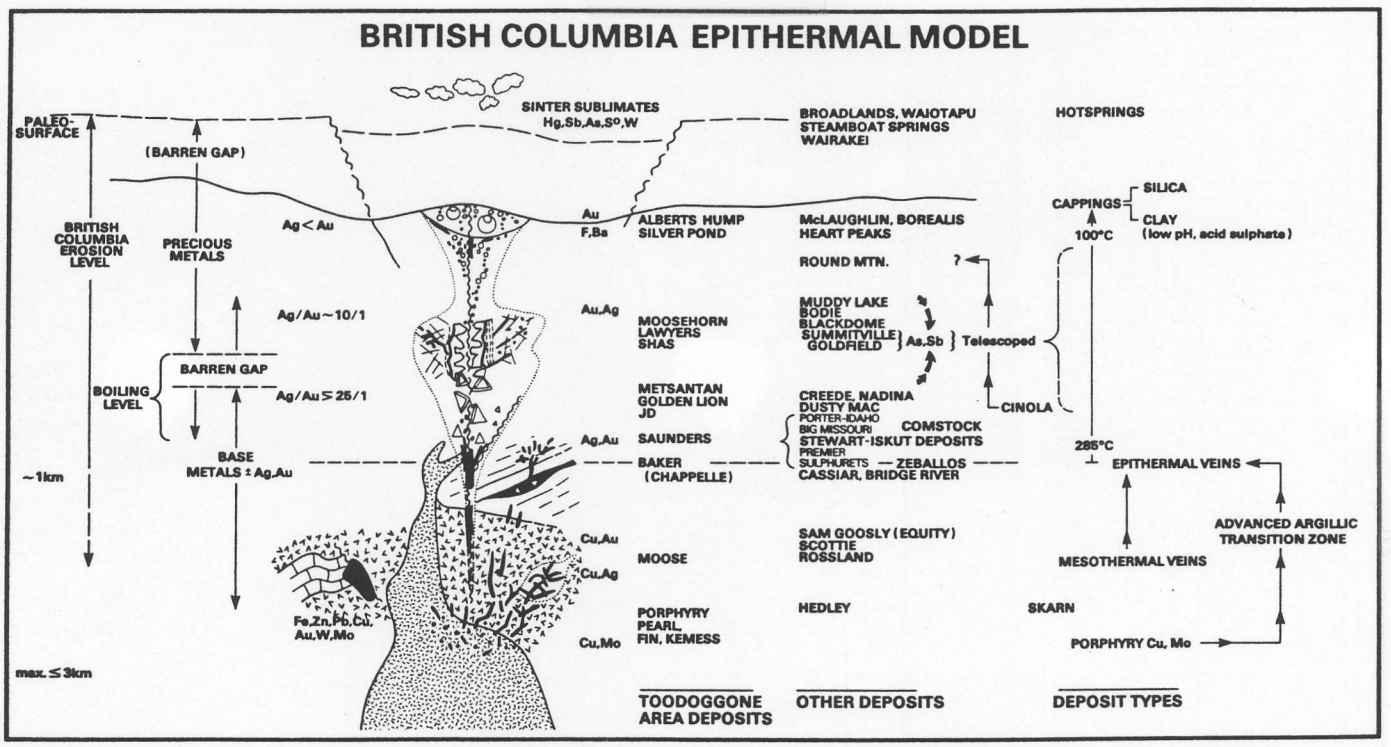

Figure 5 *British Columbia epithermal model. The model is based on studies of epithermal deposits in the Toodoggone area by T.G. Schroeter and A. Panteleyev, and comparisons with deposits elsewhere. The model infers a continuum exists from porphyry copper and skarn through transitional deposits, to epithermal veins, and hot spring discharge deposits.*

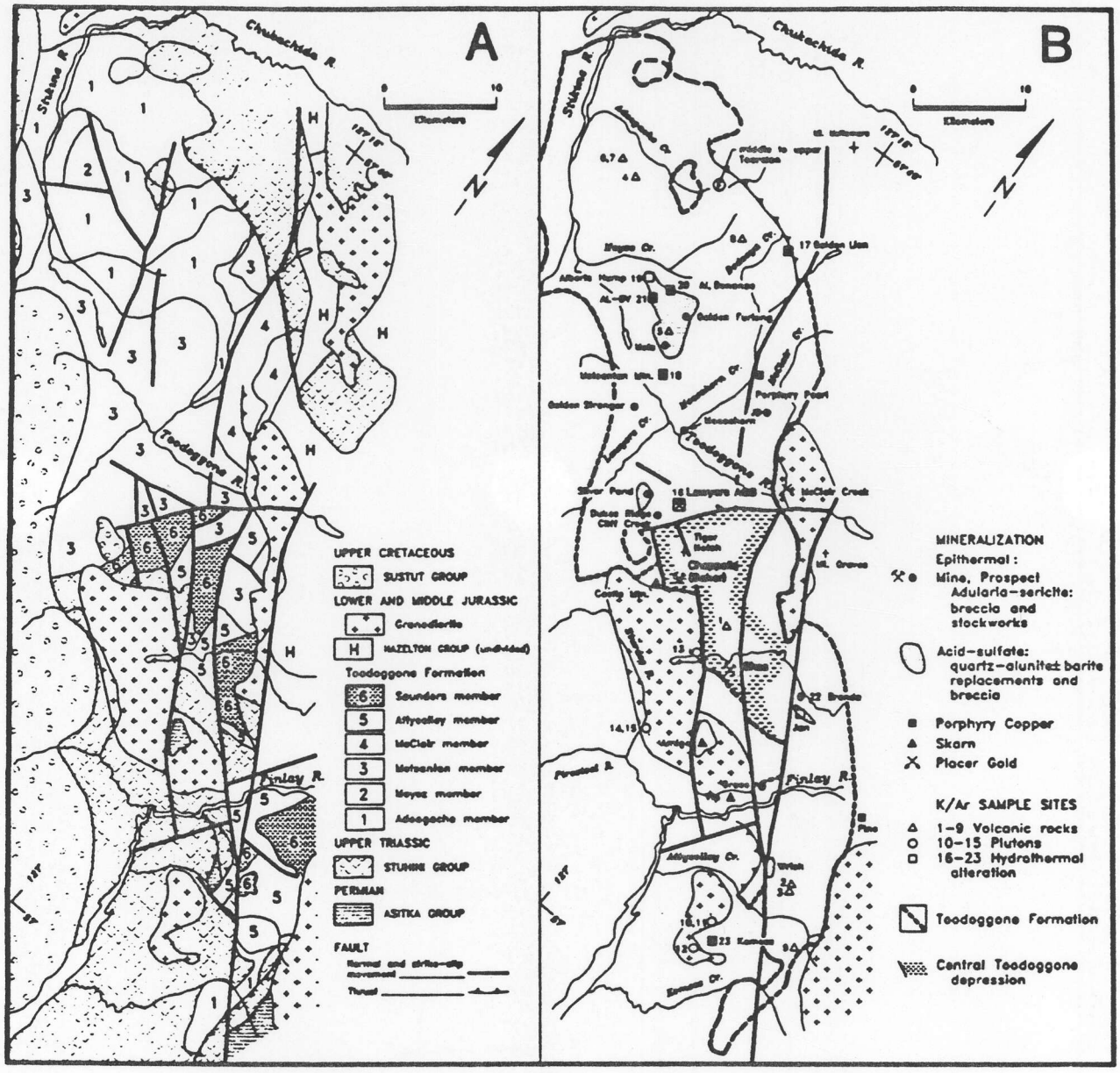

FIG. 3. A. Simplified geology of the Toodoggone map area, modified from Gabrielse et al. (1977) and Diakow et al. (1985). B. Locations of mines, major prospects, acid sulfate advanced argillic-altered rocks, and radiometric age determination sample sites.

FIGURE 4 REGIONAL GEOLOGY (after Diakow et al,'91)